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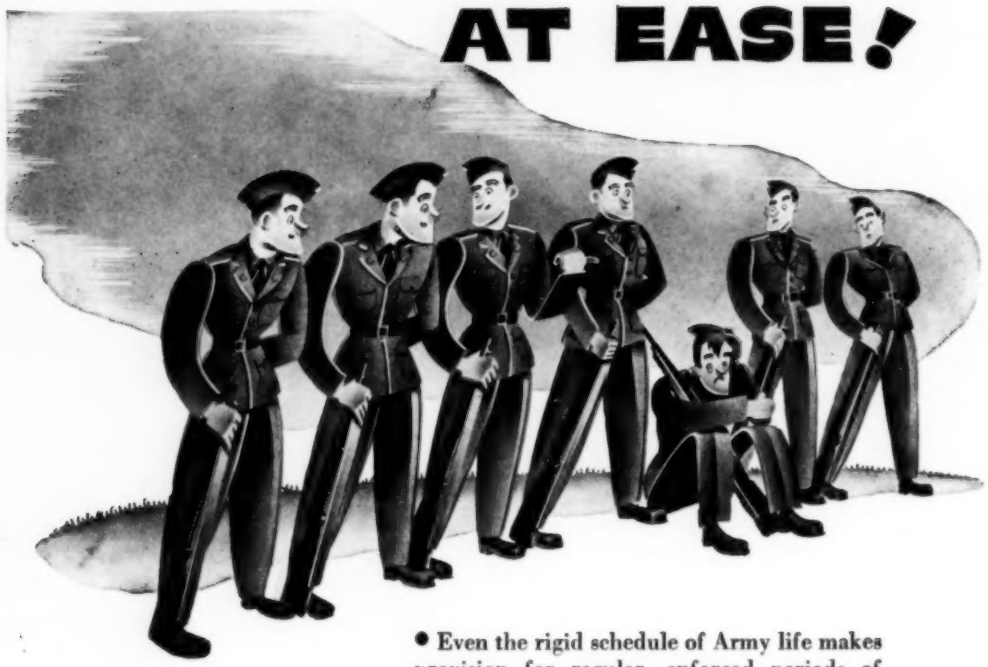

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THE Journal
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THE JOURNAL
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OKLAHOMA STATE MEDICAL ASSOCIATION

VOLUME XXXV OKLAHOMA CITY, OKLAHOMA, AUGUST, 1942 NUMBER 8

Influenzal Meningitis*

A Case Report

FRANCIS J. DAUGHERTY, M.D.
CARROLL M. POUNDERS, M.D.
OKLAHOMA CITY, OKLAHOMA

The prognosis in Influenzal Meningitis is not good, especially in very young children. It is interesting to compare the mortality rate before and after the advent of chemotherapy. In 1936, Wilkes-Weiss surveyed the literature and found 500 cases. In those patients under two years of age (373), the mortality rate was 97.6 percent. In those paients over two years of age (127), the rate was 79.5 percent. In 1940 Aleman collected 478 cases under two years of age who had been treated since 1936 and found the mortality rate to be 96.8 percent. Hence the death rate in patients of this age group has not been reduced significantly. Lindsay et al in 1940 reported a death rate of 54 percent in 33 patients of various ages. Other workers have reported a mortality rate as low as 33 percent in a small series of patients.

During the past 12 years fifteen cases of Influenzal Meningitis have been diagnosed and treated by the Pediatric Department of the Crippled Children's Hospital, Oklahoma City, Oklahoma. The ages of these patients ranged from four weeks to nine years and eleven were two years of age or younger. The duration of the disease was from two days to 43 days in the fatal cases. Five patients received chemotherapy but only recently has a patient with this disease recovered. The type of therapy used in this case differed from that previously employed and consisted of a modified form of the treatment recommended by Lindsay et al of Washington, D. C.

CASE REPORT

B. Mc., a three year old colored female, was brought to this hospital on February 11, 1942 by her mother who stated that the patient had been well until ten days previously when she developed a common cold. No unusual symptoms were noted till the day before admission when the patient became irritable, disoriented, and would roll from side to side on the bed.

On physical examination, the child appeared well developed and well nourished but acutely ill. Her rectal temperature was 102°F., the pulse rate 148 and the respiratory rate 54. The nasal and pharyngeal mucosae were hyperemic. Her lungs were clear. She showed a mild degree of opisthotonos, a definite meningismus and positive Kernig and Brudzinski reflexes. The achilles tendon reflexes were either absent or hypoactive.

A lumbar puncture was done, and the cerebrospinal fluid was turbid and under pressure. On the basis that this was most likely a meningococcus meningitis 10 cc. of concentrated antimeningococcus serum was given intrathecally.

On the day following admission the laboratory findings were reported as follows: hemoglobin, 13.5 gms.; erythrocytes, 4,860,000; leukocytes, 23,100 with 73 percent polymorphonuclear neutrophiles. The cerebrospinal fluid showed 4,500 leukocytes with 89 percent polymorphonuclear neutrophiles, 150 mg. protein, 10 mg. sugar and a negative Wassermann reaction. A smear from the cerebrospinal fluid showed long gram-negative bacilli and the culture was positive for Hemophilus Influenzae.

The plan of treatment consisted of daily lumbar punctures and drainage of cerebro-

*From the Pediatric Department of the Crippled Children's Hospital, Oklahoma City, Oklahoma.

spinal fluid to relieve the increased pressure. Following drainainge 15 cc. of a mixture of equal parts of anti-influenzal bacillus serum and two percent sodium sulfapyridine solution were injected intrathecally. The remaining 22 cc. of specific serum from one ampule was given intravenously or intramuscularly daily. Sodium sulfapyridine, 4 gms. in 500 cc. of .9 percent sodium chlodire solution, was injected subcutaneously daily. This amount kept the blood concentration around 10 mg. percent. 200 mg. of cevitamic acid was given daily by mouth. Supportive treatment consisted of a diet of 1,300 calories, adequate fluids, and four transfusions of 250 cc. of whole citrated blood each.

On the nineteenth day of her hospital course, the patient's spinal fluid was negative on culture and continued to be negative for three successive days. On the twenty-sixth day the cerebrospinal fluid was again examined and found to be negative for Hemophilus Influenzae.

The patient is now receiving a general diet with supportive treatment and apparently has no residual findings.

CONCLUSIONS

1. The prognosis of influenzal meningitis is not hopeless.
2. Early examination of spinal fluid by a competent bacteriologist, in doubtful cases, is essential.
3. Specific serum may be of benefit and should be used.
4. Sulfapyridine is the drug of choice.
5. Early treatment of influenzal meningitis is essential.
6. Daily drainage of cerebrospinal fluid is indicated.
7. Even when recovery takes place, the course is rather long and not dramatic.

BIBLIOGRAPHY

1. Aleman, Ruth: Influenzal Meningitis, New Orleans Medical and Surgical Journal, 93:25-33, 1940.
2. Lindsay, Janvier W.; Rice, E. Clarence, and Selinger, Maurice A.: Journal of Pediatrics, 17:220-227, 1940.

Problems of Behavior in Child Guidance*

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The problems of behavior adjustment in children are many and varied. To attempt to list all would be unnecessary. They run the gamut from feeding disturbances of infancy through complaints of enuresis, soiling, temper tantrums, speech disturbances, tics, spasms, to school and social maladjustment, running away from home, and stealing. Despite the apparent dissimilarity, they are all alike in that they are expressions of dissatisfaction or unmet needs of the child. The same factors which operate in the creation of early and mild problems continue to operate, though frequently in more exaggerated form, in the creation of later and more serious difficulties. With this in mind, the preventive aspects loom increasingly important

Leaving out for the moment the difficulties directly related to organic brain damage and to inherent intellectual deficiencies, it is generally accepted that the majority of problems result from conflicts in the parent-child relationship. The problem is merely a symptom expressive of inner tension and anxiety. Thumbsucking, masturbation, or enuresis is not a problem to the young child. To the parent it is a source of irritation and a major complaint. To the child, it is a source of gratification. Treated symptomatically, by restraint, threats, and physical punishment, that particular symptom may be removed, but nothing has been done to understand and correct the deeper emotional problem which gave rise to the symptom. Instead, the child's tension and anxiety have been increased and may be expected to reveal themselves in other symptomatic behavior. Forcible removal of such neurotic manifestations, without substitution of adequate satisfactions, has frequently been of more harm than help to the child. In older children who are aware of the social implications of a particular habit and who are desirous of release from it, symptomatic treatment with his permission and understanding is frequently desirable since it may result in a better adjustment in other areas.

The role of the pediatrician has undergone considerable change in recent years. He is

*Presented at the Pediatric Session of the Oklahoma State Medical Association Meeting, April 23, 1942.

no longer concerned only with the physical care of the child. The "whole" child has become of increasing importance with the awareness of the inseparability of mind and body, of mental and physical growth. Routines for the physical management of infants and children have been glibly set forth and in too many instances mothers have interpreted such in a manner which best suited their own feelings. There is a dearth of sound information which parents have regarding the bringing up of children with reference to their emotional needs. The formulation and dissemination of psychologically sound suggestions for the management of children during the first five years is a current necessity. Parents require information on the different kinds of behavior which may normally be expected of the child at various stages during this period. A parent who is forewarned is less likely to become anxious and concerned or to make an issue over what they might otherwise regard as abnormal behavior. This presents an opportunity for the pediatrician which no one else is in so favorable a position to meet. On the part of the pediatrician it requires a thorough knowledge of habit formation, of emotional development and of personality growth. In addition, the time requirement is an element which cannot be overlooked in dealing with troubled parents and children. Behavior can neither be understood nor modified in one brief interview.

Psychiatry and mental hygiene have, unfortunately, no short cuts nor set of rules to offer in the treatment of problem behavior. What is offered is a point of view based upon certain general principles. The pediatrician is familiar with the use of the otoscope and ophthalmoscope and utilizes them in his daily practice, yet without claiming to be an otologist or an ophthalmologist. In similar fashion may he profit from becoming familiar with psychiatric methods of dealing with disturbed children, and concepts underlying these methods, without feeling the need to become a psychiatrist. These procedures may not be feasible for direct application in pediatric practice, but for orientation and guidance in developing to the fullest extent his relationship with parents and children, they should prove of value.

For the purpose of simplicity, we may consider the basic factors which influence personality development and behavior of children as falling into four categories or spheres; namely, the physical, intellectual, social, and emotional. However, the multiplicity of causative factors should be kept in mind since it is seldom that only one factor is involved. Yet, alleviation of one factor often serves to lighten the stress so that general improvement is observed.

Physical factors have been found to be both directly and indirectly responsible for the development of behavior disorders. Needless to say, a thorough physical examination is of prime importance in any study of the child. Symptoms of hyperactivity, restlessness, irritability, distractibility, inattention, school failure, belligerency, and even delinquency may be closely associated with diseased tonsils, dental caries, genito-urinary infection, defective vision or hearing, or endocrine dysfunction. The child with chronic infection or with defective vision fatigues more readily in the classroom and his restlessness and inattention may call forth the ire of the teacher. This may result in increased irritability and in active retaliation on the part of the child, or in sensitive withdrawal. A vicious circle is thus established, becoming more intolerable as time goes on. Such a chain of events is known, for example, to have been initiated by a scabetic infection which made the child restless and inattentive. Although physical factors initiate the disturbance, emotional reactions often set in which may well become so strong that treatment of the physical condition alone will not always suffice. Efforts directed toward an understanding of the individual case is frequently necessary both in the home and school to bring about acceptance of the child, and readjustment.

Physical complaints not infrequently mask underlying emotional problems. On the one hand, some parents feel less guilty if behavior can be explained on a physical basis, and they will take their children to the physician with specific diagnoses of their own or in search of some organic cause for the child's maladjustment. On the other hand, physical symptoms may be the child's only acceptable release for inner tensions. Recent studies, for example, on children with complaints of abdominal pain in whom no organic basis for such could be detected, have revealed interesting facts. From on intensive study of twenty-five such children, Dr. John Lambert concluded that the abdominal pain was the visceral accompaniment of emotional disturbance. The attitudes associated with the complaint were generally in the nature of fear, anxiety, and resentment and in most instances were directly related to the home setting. These emotional factors were not brought out by the parents, but in interviews with the children. These children did not seem able to express their feelings at home openly and directly to the same extent as most children. In the face of frustrating experiences, the child's hostility and rebellion appeared in the form of visceral sensations. One girl remarked, "When my mother wouldn't let me go, it made me excited inside and my tummy started hurting."

Serious problems may develop on an emotional basis following an illness or operation. The attitudes of parents and nurses during the actual illness, and especially during the convalescent period, may be too satisfying to the child for him readily to relinquish the extra attention. Added attention and love are necessary during the acute illness to maintain the security of the child, but this should be distinguished from giving in to unreasonable whims and demands on his part.

A child's first illness may result in a chronically overconcerned mother with an overprotective attitude which is a handicap to the child's continued emotional growth and maturation. Some parents have, through overprotective measures, succeeded in making veritable invalids out of their children, and the effects of this upon the adult personality are only too obvious. One cannot blame the young child for liking this expression of concern, for it may be his strongest emotional tie to the mother, and he may be unable, if not actually unwilling, to free himself of it as he grows.

Illness or an accident which results in physical handicap, such as heart disease, tuberculosis, paralysis, bone deformities and the like warrant a considerable amount of time and effort on the part of the physician in proper interpretation to child and parent. One should emphasize not the limitations and restrictions to be followed, but rather the things that can be done. Particular interests of the child should be utilized and built up so that he may achieve a sense of adequacy through accomplishment to make up for his inability to join in the usual pastimes of his friends. Too frequently, boys have been seen in correctional institutions who, as a result of "being different" from their fellows in not being able to do the things they did, sought and found ready acceptance in a delinquent group.

One should not overlook the possible traumatic elements inherent in hospitalization and operation. Children are often whisked away from home and to the hospital without any explanation by the parent of what is in store for them. Children should not be misinformed as to procedures for it results in loss of confidence and trust. Physicians and nurses, even though cognizant of this factor, are often prone to overlook it in the pressure of activities and because the child's apparent adjustment on the ward may be satisfactory.

Learning difficulties in school are not limited to retarded children. Children of average or superior intelligence may have specific disabilities in reading or arithmetic from the very start which will retard their progress and create emotional disturbances because they feel inferior to their classmates. These disabilities must be accurately diagnosed by proper psychological tests before adequate remedial measures can be undertaken. There is also the child who is started in school without the desirable preparation, who regards the school as a hostile environment and as being responsible for his separation from mother. He may fear that a younger brother or sister, left at home, will completely usurp his place in the parental affections. These are some of the emotional barriers which can block the acquisition of knowledge.

A comparatively large group of children will be found who are not feebleminded, but who fall in the range between borderline level of intelligence and average. Retardation of one to two years in their mental development will be sufficient to make it impossible for them to grasp the fundamentals in the early grades as do others of the same age group. Their schooling must be at a slower rate so that they may better absorb the instruction. Psychological tests help us to understand these cases by making us aware of their ability and capacity for learning.

Children in either of the above two groups will compensate for the sense of inadequacy they experience in accordance with their constitutional and personality make-up. Some will display aggressiveness of varying degrees; some will assume a veneer of indifference; others may withdraw within their own shell—a social recluse.

The mental defective or feebleminded child and the child with brain damage resulting from trauma or from residuals of encephalitis are brought to the physician for help. Unfortunately their parents have usually received little in the way of constructive suggestion. In most of these cases, even though a formal school program in the community is out of the question, there are various opportunities offered in handicrafts. These children can learn to do simple things with their hands and keeping them occupied and accomplishing something, even at a low level, helps both parent and child. Psychological tests help us appreciate at what mental level these children are ready to do things. Restlessness and distractibility are features which make it difficult to get them to concentrate on any one project, but the use of mild sedation may slow them down sufficiently to get their interest focused. Once the latter is accomplished, sedation can be withdrawn. Some of the behavior symptoms presented by these children are inherent in the brain damage suffered. Other symptoms, however, are superimposed upon this first group and are only indirectly connected with the organic illness. These latter symptoms are the result of faulty training, of parental rejection, of overprotection, and of verypre-

valent faulty misconceptions as to what could be expected of these children in the way of independent initiative and achievement.

In considering the social and emotional phases of a child's development we are dealing with less obvious, less tangible material but none the less real. The child's first social contacts are within the home and remain predominantly so until entrance in school. It is in the home that he observes and takes on certain patterns of behavior, general attitudes and prejudices which may help or hinder him in his wider social relationships outside the home. In his social contacts outside he will first begin to feel keenly the differences from his fellows—differences in economic and cultural aspects of the family, differences in standards of living and standards of life. Some children find themselves unable to adjust these differences without help and encouragement and thereby unable to get along with their fellows. These experiences lead to emotional reactions which can mean the difference between success and failure. A good number of social misfits, on the other hand, have emotional problems which have developed in the home and which militate against successful adjustment outside. Some of these children, with more or less serious emotional conflicts in their family relationship, are able to compensate for their previous lack of satisfaction in the home through satisfying relationships in school and in the neighborhood. Too frequently, they are unable to do so without some help through a relationship with an adult in which they find acceptance.

Emotional problems of children developing directly and primarily as such, in contrast to those resulting from physical, intellectual or social factors, are usually based on failure to supply a fundamental need. Two basic needs are: (1) security (love and affection and awareness of being a wanted and integral part of the home); (2) development of independence and self-responsibility. (This entails recognition of the child's individuality and need for self-direction).

Lack of security results in feelings of rejection by the child and this is the most traumatic emotional experience possible. The rejection may be actual, as in the case of a parent who does not want the child, who is emotionally incapable of accepting the dependence of the child, or who projects his feelings toward someone else on the child. The rejection may be fancied as in the situation where the child feels another sibling is favored or where he is confused by the conflicting and inconsistent methods of discipline employed.

Many immature or neurotic parents make it difficult for a child to develop self-dependence. Such parents feel a strong unconscious need for keeping their children tied to them. The child may glory in this dependence or may be conflicted between a desire to remain in this blissful state and the desire to emancipate himself. The problem becomes increasingly serious as adolescence and adulthood are approached. Overt difficulties may first reveal themselves when such an individual goes off to college, gets a job or marries.

No two families react to their children alike. In fact, no set of parents reacts to each of their own children in exactly the same manner, at least in the eyes of the individual child. This difference in emotional feelings and reaction produces a different environment for the personality development of each individual child in spite of the fact that the parents, home and physical comforts are apparently identical. The mere presence of another child in the home produces a rivalry situation with resultant tensions between the children which call forth acts to which the parents may well be expected to react differently. To minimize rivalry and jealousy between siblings, there should be adequate preparation of an older child for the reception of a new arrival. In addition to being made to feel that he is going to be helpful in the care of the new child, it is important not to show excessive attention to the new infant in the presence of the other child.

Parental misunderstanding, immaturity and personal maladjustment are vital factors concerned with the behavior of the child. Misunderstanding can be corrected, and anxiety of the parent because of lack of knowledge can be alleviated. The neurotic parent, however, presents considerable difficulty in a treatment program. Parents have themselves come through a childhood of their own, charged with emotional gratifications and frustrations. Their problems are of much longer duration than those of their children. Intellectually they may be able to accept the desirability of change in their attitudes and methods, but emotionally they may not. Many seriously neurotic adults are in need of psychiatric help.

Even though it is true that problems of children usually are indicative of "problem parents," I regret to see this latter term obtaining such wide circulation among the laity. The ultimate effect is to be feared. It makes it more difficult for a parent to seek help for the child since the term infers blame and creates a defensive attitude on the part of many parents. A parent feels a sense of failure and guilt before seeking help for his child. There is no place for blame

or fault-finding in any treatment relationship with parent and child. Just as we have grown more understanding of the child with a problem and have progressed to the point of seeking an explanation for misbehavior, so should we begin to understand the difficulties besetting the parent. Scolding the parent is as destructive as scolding the child. Treatment for both is necessary through a tactful approach, with encouragement to the parent that he or she has done the best within his or her power under the circumstances.

BIBLIOGRAPHY

Pediatrics and Child Psychiatry: A Symposium. Amer. Journ. Orthopsychiatry. 11:423-451, July 1941.

Lambert, John P.: Psychiatric Observations on Children with Abdominal Pain. Amer. Journ. Psychiatry. 98:451-454, Nov. 1941.

Aldrich & Aldrich: Babies Are Human Beings. New York. The Macmillan Co., 1941.

Kanner, Leo: Child Psychiatry. Springfield Ill. Charles C. Thomas, 1935.

Staff of the Institute for Juvenile Research. Child Guidance Procedures. New York, D. Appleton, Century Co. 1937.

Stevenson, George S.: Why Parents Consult the Pediatrician. New York. The National Committee for Mental Hygiene.

Safety Factors in Cesarean Section

L. C. NORTHRUP, M.D.

TULSA, OKLAHOMA

In March 1941, I published a brief article on "Safety Factors in Obstetrics". In this paper mention was made of the universal improvement in mortality brought about by the adoption of the low cervical cesarean section. Since this paper appeared I have received many requests for detailed information about the technique of this operation as it is done today. This paper is in answer to those requests.

My interest in the low cervical cesarean section is founded on fourteen years of personal experience with the operation. During this time I have performed over 300 consecutive low cervical cesareans, without a single maternal death and with no injured babies. Some of the babies did not survive but their death was in no way associated with the operation. The average operating time for this entire series was 38 minutes. Average number of days in hospital was eight. There was not a single case of peritonitis or severe hemorrhage. The morbidity was confined to a few cases of pyelitis and a few cases of phlebitis. These were not in excess of the number encountered in any other type of delivery.

Since the adoption of the low segment operation, the indications for cesarean section have been greatly extended. For example, I am now doing low segment cesareans on almost all my breach positions, especially the full term primipara. This is because of the high mortality for this type when attempt is made to deliver them vaginally. The infant mortality rate for breach presentations at Hillcrest Memorial Hospital for the past fourteen years is over 16 percent. The indications have been summed up by Dr. McGilvery of New York as follows: "Whenever the obstetrician feels that a low cervical section will give his mother and her baby a better chance than a vaginal delivery, he has sufficient indication." For the past two years I have been doing low segment cesareans on all difficult cases. During these two years, I have not had a single infant death from any cause whatever.

The name "low cervical section" is not a good name, as the incision is not in the cervix at all. I much prefer the term "low segment operation". The incision is in the lower uterine segment and not in the cervix. Any operation in which the incision extends into the contractile portion of the body of the uterus should not be classified as a low segment or low cervical operation. The safety of the low segment operation lies in the fact that the incision is confined to the lower uterine segment which is not contractile and is therefore not subjected to the churning action associated with the after pains during the process of involution. This low segment incision heals while at rest. The second safety factor is your ability to create two peritoneal flaps to suture, overlapping, over the incision. This prevents any leaking.

It is not the spill of amniotic fluid at the time of operation that causes peritonitis. Peritonitis is caused by the leaking of infected lochia thru the classical incision in the contractile portion of the uterus, which often gaps open as the uterus contracts after delivery. This also causes hemorrhage which never occurs in the low segment incision.

The primary factor in safe obstetrics is to have a safe patient to start with. If your patient has had adequate pre-natal care, she will be a good risk. She will not be anemic or toxic. She will be well nourished, having had plenty of calcium and vitamines. You will know about her heart, lungs and kidneys. You will know about the size and position of the baby. A good healthy patient will give you a lower mortality.

I wish now to take up some safety factors associated with the technique that have developed during the past fourteen years. No pre-operative medication is used except one hypodermic of 1/75 gr. atropine given one hour before surgery. The vulva is shaved and about one ounce of full strength plain Zephiran is instilled into vagina. The abdomen is painted with the Tincture of Zephiran.

Spinal anesthesia holds first place in safety for the baby but is about fourth place in safety for the mother. Cyclopropane is first choice for the mother and only second choice for the baby, so we use it exclusively. It is administered by an experienced specialist in anesthesia. At time of the incision, we give 1 cc. Pitutrin or Pitocin. This is timed so that it will take effect as soon as the head is ready to be delivered. The patient is placed in extreme Trendelenberg position. Don't attempt the operation with the patient flat. A fundamental principle of good surgery is to avoid trauma and mutilation, so keep the incision below five inches in length. Four inches is enough for most babies. Never go above umbilicus. I usually make a very short incision about two inches long, directly in the mid-line about half way between umbilicus and symphisis. This incision is carried directly into abdomen. Then, before enlarging the incision, inspect bladder and enlarge incision away from bladder so as not to cut into it. The completed incision should extend from the bladder up four to five inches.

No packs are used. I think they produce trauma and can serve no useful purpose. You will seldom see any intestine. Locate the place where the bladder is attached to the anterior surface of the uterus. There is usually a white "V" shaped fold at this place which can be easily seen. Look also for the circular sinus, which is a large sinus that crosses the surface of the uterus from side to side, just under peritoneum. The incision thru the viseral peritoneum should be made just below this sinus and just above the bladder attachment. Make this incision in a semilunar direction, curving up at outer ends to avoid the vessels at each outer edge of uterus. Dissect peritoneal flaps up and down from this incision, about ½ inch only. These flaps will be large enough after the uterus contracts. The incision into the lower uterine segment follows parallel to and just beneath the incision in the viseral peritoneum. If your landmarks were right, you will be just above the junction of the lower uterine segment with the cervix. The uterus at this place is seldom more than ⅛ inch thick at full term. You will encounter very little bleeding. Make the incision just big enough to deliver the head and no bigger. I use bandage scissors for this incision into uterus so as not to cut the baby's face. Slip your right hand into uterus and lift the head up into incision. The assistant will now press on fundus and the head can be worked thru the incision. I use a special flat curved instrument to lift the head out. This instrument is called "Torpin Vectis", sold by Mueller Co. It is a curved blade 1½ inches wide and 9¾ inches long, with a handle. As soon as baby is delivered the placenta is delivered and then the uterus is delivered thru the incision in abdomen. A hot wet pack is wrapped around the uterus and it is grasped in right hand of assistant. The uterus, can, in this way, be pulled up out of pelvis so the incision can be accurately sutured. This is most important. Two rows of chromic gut are placed by continuous suture into the incision in lower uterine segment. The second row invaginates the first row. Then the peritoneal flaps are sutured over this incision. The upper flap first, then the lower flap, overlapping. The uterus is replaced into abdomen and the abdomen closed in usual manner. I am opposed to doing any other surgery at time of a cesarean section.

As soon as the baby is delivered the mother is given a hypodermic of morphine and ergotrate. The nurses on floor are instructed to repeat the ergotrate whenever necessary to check excessive flowing. This is seldom necessary in the elective cases. It is some times necessary in the cases that have had a long trial labor.

I am constantly amazed at the quick

smooth convalescence. In most cases food is given at end of 24 hours. Patient is allowed to get out in a chair on the sixth day and encouraged to walk about on the seventh. Early exercise helps to prevent phlebitis.

I believe that a low segment section is safer than a difficult vaginal delivery. You must have good help, a good anesthetic and above all a patient that has had adequate prenatal care. If you are going to do a section, it is better to do it as an elective operation and avoid a trial labor if possible.

Complications of Duodenal Ulcer: Their Surgical Management*

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Medical minds have been studying the problems of duodenal ulcer for twenty centuries, yet the further its mysteries are penetrated, the more mysterious it becomes. Especially is this true of its etiology. The many theories which have been advanced, all of which seem in a measure valid, lead one to believe that we are far from discovering the real truth, and certainly the whole truth. In the light of our present knowledge, diet, infection over-exertion, circulatory disturbances, and derangements of the nervous system, from intrinsic disorders or extrinsic influences, or both, are all active in more or less degree in the production of ulcer.

Questions of therapy are inseparably involved with those of etiology, and until we know the answers to the latter, we shall probably continue to have ulcers, many of which will require surgery. Until that time, therefore, we may well strive for a better understanding of the usage of the surgical procedures now available. It is not the way of progress to be content with any achievement, however seemingly perfect; nevertheless, certain of the operations thus far developed for duodenal ulcer, when properly applied, may be relied upon to insure patients, with rare exceptions, freedom from further difficulty from this source.

This discussion will deal with the operative treatment of duodenal ulcer in the presence of (1) acute perforation, (2) hemorrhage, (3) obstruction and (4) intractability, and of (5) gastrojejunal ulcer and gastrojejunocolic fistula, these being the only conditions in which surgery is recognized as indicated.

ACUTE PERFORATION

Acute perforations arise, as a rule, from ulcers on the anterior wall of the duodenum. They are encountered most often in comparatively young individuals. The perforation occasionally occurs without previous warning, or with no more warning than a prodromal period of a few days, wherein the patient experiences some abdominal discomfort and digestive disturbance. Usually, however, a history of symptoms for weeks or months, or perhaps for years, is obtained. In the majority of cases, the perforation is brought about by some influence which causes intra-abdominal or intragastric pressure, such as eating, drinking carbonated waters, exertion or excitement.

The diagnosis should be readily made by anyone who has observed even one or two patients in this condition, the outstanding features being excruciating pain of sudden onset, and abdominal tenderness and rigidity. Usually, the pain is localized in the epigastrium, particularly on the right, though it may be generalized over the abdomen or referred to the left upper quadrant or to the shoulder region. In degree, it is out of all proportion to that of any other disorder. The patient's suffering is obvious: the expression is drawn and agonizing, beads of perspiration stand out on the brow, the skin is pale, cold and clammy, and the patient lies perfectly still, resenting the examining hand or any effort at movement. His appearance is that of one in great shock, yet the blood pressure is not elevated, the temperature is normal or subnormal, and the pulse is slow. Nausea and vomiting may or may not be associated. Within a short while the abdominal muscles assume a rigidity which is so unyielding to pressure as to be characteristic of perforating ulcer.

After a few hours, these acute manifestations subside to some extent and the patient seems slightly more comfortable, though the abdominal tenderness and rigidity persist.

*Read before the Fiftieth Anniversary of the Oklahoma State Medical Association, Tulsa, April 24, 1942.

If surgery is not undertaken, however, this phase is soon followed by signs of bacterial peritonitis: the temperature and leukocyte count rise, the pulse rate is accelerated, the pulse volume is reduced, and the abdomen becomes increasingly distended. A plain film will often reveal gas beneath the diaphragm. This clinical picture is a definite indication for immediate operation.

Not all acute perforating ulcers present such an emergency. Many are of only pin point size, leakage is slight, and the opening is immediately protected by omentum or fat, or by the gallbladder, liver or other adjacent structures, and in a few days the patient recovers. Occasionally, the contents escape above the liver, producing a subdiaphragmatic abscess. In this event, the patient usually comes to surgery on account of the abscess and the ulcer is found only incidentally. Unless operated on promptly, a large quantity of fluid may accumulate beneath the diaphragm, increasing the risk and prolonging the convalescence. Just last month, a patient was referred to us four days following perforation of a duodenal ulcer. Although at operation the perforation was found to be partially protected, almost two quarts of fluid was removed from above the dome of the liver and beneath the diaphragm. The patient is still in the hospital, but is well on the way to recovery following a second drainage of the extensive subphrenic abscess.

Treatment.—It is our custom to approach the abdomen through an upper transverse incision. By this method, the danger of wound infection and disruption from escape of the chemically irritating and infectious fluid from the peritoneal cavity is minimized, in that the incision follows the course of the tissue fibers, thus permitting the edges of the wound to come together without strain upon the sutures. In addition, the nerve and blood supply are conserved and healing takes place rapidly and firmly. We have had no wound disruptions since beginning the use of this approach, ten years ago.

Formerly, we excised the ulcer and closed the perforation by purse-stringing the opening with Lembert sutures, or orthewise enfolding the perforating zone. During the past several years, however, we have made no effort to close the perforation itself; instead, by means of a series of sutures placed in the stomach and duodenum, the pyloric end of the stomach is folded over the ulcer, covering it completely, and omental fat is tied over the area. This method is based upon the presumption that a rapid and massive formation of fibrin effectually closes the opening. Dr. Willis Gatch, of Indianapolis, described practically the same procedure at a meeting of the Southern Surgical Association in 1936.

There is still some discussion as to the necessity for gastroenterostomy in these cases. We once made a practice of performing a gastroenterostomy in addition to closure of the ulcer. There was a reason for it. Our effort to close the perforation completely by sutures usually obstructed the pylorus for several days. Since we have been using the suction syphon apparatus, as suggested by Wangensteen, thus putting the stomach at rest postoperatively, a simple closure by the method described has been found sufficient. Few of these patients require further surgery.

If the perforation is protected, the problem may be different. Often, one finds a large, edematous mass about the pylorus and the first portion of the duodenum, where the tissues are fixed because of this protection and the inflammatory reaction, producing a marked obstruction. In many such cases, a gastroenterostomy may be necessary as a life-saving measure.

After closure of the ulcer, it is our custom to pour from seven to 15 grams of one of the sulfonamide drugs into the peritoneal cavity and into the wound. We have observed no untoward effects from these drugs and are convinced that the peritoneal reaction is less, convalescence smoother, and the mortality lower.

If the operation is performed early, drainage is unnecessary. We practically never institute drainage unless more than twelve hours has elapsed since the perforation and bacterial peritonitis is present or imminent.

During the past nine and one-half years we have operated on 26 patients for protected and unprotected perforating duodenal ulcer. The unprotected perforations were simply closed, while a gastroenterostomy was performed for the protected perforations, with one exception; this patient had a gastrectomy for recurrent duodenal ulcer with perforation, following a pyloroplasty several years earlier. One of the group, for whom a gastroenterostomy was done, now has clinical and roentgenographic evidence of a recurrence.

HEMORRHAGE

Whereas ulcers on the anterior wall of the duodenum perforate into the peritoneal cavity, those on the posterior wall penetrate into the head of the pancreas, eroding the blood vessels and producing hemorrhage. In extent, the hemorrhage varies according to the size of the blood vessel which has become eroded. Usually, it appears as melena, though it may be presented as hematemesis, or again as both.

More than one-fourth of all duodenal ulcers are of the bleeding type. The majority give rise to a mild but recurrent hemorrhage with persistent symptoms of ulcer, especially pain referred to the back, from penetration into the head of the pancreas. There is another group, however, in which hemorrhage recurs often or is practically constant, obviously coming from a fairly large perforation of an artery, and keeping the blood pressure and hemoglobin at dangerously low levels despite repeated transfusions. Here, also resection should be undertaken as early as possible. The longer the delay, the graver the danger from damage to the liver, kidneys, heart, brain and other organs, and the greater the likelihood of a sudden massive hemorrhage.

Treatment.—In our opinion, the proper treatment for hemorrhagic ulcers is gastrectomy. Until a few years ago, it was our practice, if the patient was in poor condition, to open the duodenum, cauterize the ulcer, and do a pyloroplasty. This procedure is now seldom, if ever, employed, as it has been found that the radical operation, with few exceptions, may be safely carried out following adequate preparation.

Frequently, one may experience great difficulty in separating the duodenum from the pancreas without damaging the common duct and large vessels. With care, however, it may be freed three-fourth to one inch, which is sufficient to permit complete closure. Or, if the perforation is large, the duodenum may be divided at the level of the ulcer, Allis forceps placed on the distal stump (Fig. 1), and the pancreas and ulcer bed dissected free for the necessary distance. The stump

LEGENDS

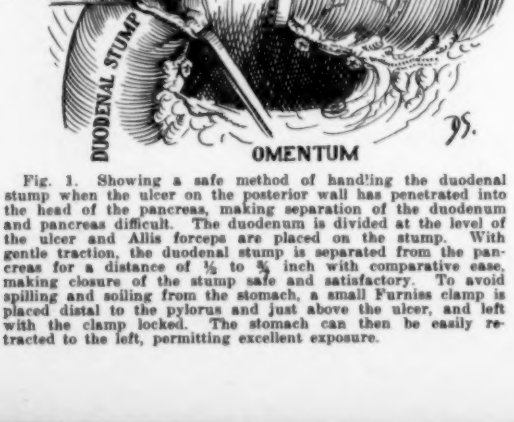

Fig. 1. Showing a safe method of handling the duodenal stump when the ulcer on the posterior wall has penetrated into the head of the pancreas, making separation of the duodenum and pancreas difficult. The duodenum is divided at the level of the ulcer and Allis forceps are placed on the stump. With gentle traction, the duodenal stump is separated from the pancreas for a distance of ½ to ¾ inch with comparative ease, making closure of the stump safe and satisfactory. To avoid spilling and soiling from the stomach, a small Furniss clamp is placed distal to the pylorus and just above the ulcer, and left with the clamp locked. The stomach can then be easily retracted to the left, permitting excellent exposure.

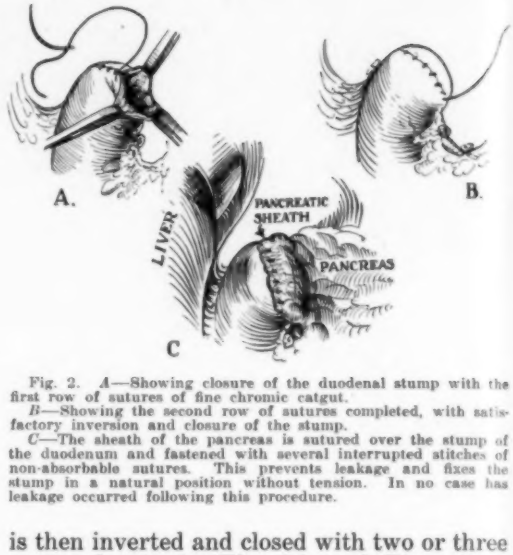

Fig. 2. *A*—Showing closure of the duodenal stump with the first row of sutures of fine chromic catgut.
B—Showing the second row of sutures completed, with satisfactory inversion and closure of the stump.
C—The sheath of the pancreas is sutured over the stump of the duodenum and fastened with several interrupted stitches of non-absorbable sutures. This prevents leakage and fixes the stump in a natural position without tension. In no case has leakage occurred following this procedure.

is then inverted and closed with two or three rows of catgut (Fig. 2A and B). As a further precaution against leakage, the sheath of the pancreas is sutured over the stump with a few interrupted silk sutures (Fig. 2C).

Formerly, we were hesitant about removing the lesion and disturbing the pylorus in poor risk cases, but with added experience we have found that this may be accomplished without materially increasing the hazard. Undoubtedly, if at all feasible, one should remove both the pylorus and the ulcer in order to eliminate pylorospasm and relieve the inflammatory reaction of the pancreas in the area of the penetration, as these are primary factors in the persistence of symptoms.

After liberation and closure of the duodenum and resection of an ample amount of the stomach, the continuity of the intestinal tract may be restored by one of several methods. We prefer the Polya anastomosis, uniting the entire end of the stomach to the side of the jejunum through the transverse mesocolon. The anterior anastomosis, after the method of Balfour, has been employed following high resections. The Hofmeister technic is preferred by a number of surgeons on the theory that it prevents too rapid emptying of the stomach. In our experience, however, function has been most satisfactory following the Polya and Balfour methods.

We do not supplement our resections by an entero-enterostomy. Such a procedure prevents reflux into the stomach of the alkaline duodenal secretions which aid in maintaining a low gastric acidity, and we have found no real indication for it.

One of the much discussed problems of gastrectomy for duodenal ulcer today has to do with the extent of the resection. Shall the

stomach be removed to a point at which absolute achlorhydria to histamin stimulation is obtained? Total anacidity is likely to give rise to distressing symptoms, and, in our present opinion, is undesirable. We feel that, in the mapority of cases, resection of two-thirds of the stomach is ample; with the Polya anastomosis, which provides rapid emptying, more extensive resection is unnecessary unless the stomach acids are unusually high or the patient appears to be of the type who is likely to have further difficulty.

From October 1, 1932, to the present time we have employed the Polya gastrectomy in 20 cases of primary and recurrent bleeding duodenal ulcers, with one fatality, this being the first patient of the group, operated upon early in 1933. The immedate cause of death was pneumonia. Six of the resections were carried out for recurrent duodenal ulcer, one of them a third recurrence. In two of the six, a gastrojejunal ulcer was associated. An additional eight patients with bleeding ulcers have had either a gastroenterostomy or pyloroplasty during the same period; three of these have since experienced a return of ulcer symptoms. Functional results from gastrectomy have been uniformly excellent.

Massive Hemorrhage.—The indications for surgery in the presence of sudden massive hemorrhage from erosion of a large artery are less easily defined than those from repeated small hemorrhages. Surgeons are of different minds on this question. On the one hand are those who state that immediate operation is indicated only if the patient is fifty years of age or beyond. In younger individuals whose vessels are elastic and in whom the clotting elements are practically normal, a clot usually forms and stops the hemorrhage, whereas in older persons, whose vessels have become sclerotic, this clot may form during the stage of shock, only to be dislodged by the force of the blood pressure after recovery from the shock; or, the clot may be dissolved by the stomach acids. Allen,[1] at the Massachusetts General Hospital, found only four deaths in a group of 90 patients under fifty years of age; in 42 over fifty, 14 or one-third bled to death. He concludes that all patients above the age of forty-five years with acute massive hemorrhage from duodenal ulcer should be carefully evaluated. Roscoe Graham[4] quotes a mortality of seven percent in 136 patients with massive hematemesis from duodenal ulcer, 70 percent of the fatalities having occurred in patients over fifty years of age. He reports that in the Toronto General Hospital the mortality from emergency operations for duodenal ulcer in patients beyond fifty has been forbidding, and therefore advocates waiting until the patient has recovered from the effects of the hemorrhage, and then performing a resection. He further states, "No operation is advised for a young patient who has had but one massive hemorrhage from a duodenal ulcer, but should a second such hemorrhage occur, then operation is not only advisable, but is urgently indicated." Blackford,[2] from a survey of vital statistics of the city of Seattle, found that massive hemorrhage from older people was fatal in one-third of the cases; further, that three-fourths of all fatalities followed the first massive hemorrhage. From these investigations, he feels that the first massive hemorrhage in elderly people is by far the most dangerous. On the other hand, in his experience, emergency operations on young patients are unjustified, even for prostrating hemorrhage, as fatal bleeding is almost unknown in persons under forty-five years of age. In contrast to these opinions, Wangensteen[5] feels that a distinction based upon the age of the patient is not a safe criterion, and that young persons with flexible arteries may bleed briskly and die of hemorrhage as well as those beyond fifty.

The necessity for immediate surgery is probably more urgent in older patients, though operation, if done at all, should be carried out within forty-eight hours, as advocated by Finsterer.[3] If it becomes obvious that transfusion and other supportive measures will not control the hemorrhage and restore a satisfactory blood pressure, one should not wait until the loss of blood proves an insurmountable obstacle to recovery. Finsterer's mortality after early surgical intervention averages 5.1 percent, whereas the reported mortality following operations delayed after forty-eight hours has been, on the whole, exceedingly high.

OBSTRUCTION

Obstruction incident to healing and cicatrization of the doudenal ulcer, usually on the anterior wall, lends itself more readily to surgical cure than any of the other complications of this disease. The acid values being low and the ulcer having already healed, the pylorus need not be disturbed. A gastroenterostomy, if properly made, with a fairly large stoma, gives immediate and permanent relief practically without exception. The patient, previously in a state of malnutrition and dehydration from persistent vomiting over a long period of time, promptly regains normal weight and strength. There is, in fact, nothing more brilliant in all the domain of surgery than the relief obtained by a short-circuiting gastroenterostmy for cicatrization of a duodenal ulcer. Further, the probability of recurrence is remote, and of no significance as compared to the risk of the more radical operation.

Pyloric obstruction from edema and swelling associated with an active ulcer is a dif-

ferent matter. If the acid values are high, gastrectomy is indicated, as gastroenterostomy carries a not inconsiderable possibility of recurrence or of stomal ulcer. Should the patient be elderly or in poor condition, however, a gastroenterostomy may be the wiser course; if necessary, a resection may be performed later.

One should bear in mind that, in these cases, a low acid value at the first examination is likely to be misleading; the edema of the gastric wall may have interfered with secretion. In the event of such a finding, therefore, stomach lavage should be carried out continuously over a period of several days, until the edema and obstruction have subsided; with restored function, the acid values may be found excessive, indicating the need for gastrectomy.

INTRACTABILITY

It is axiomatic in our clinic that all ulcer patients, with the exception of those with acute perforation, obstruction or massive hemorrhage, shall be given the advantage of medical treatment. Many patients, however, are unable to adhere to a medical regimen because of their occupations, and thus are forced to seek relief through surgery. Others, particularly those who are highly nervous, do not respond to medical management, even under the most ideal conditions. The ulcer symptoms continue unabated and the patient remains disabled despite every effort, until both he and the doctor are exhausted. It is this status which we call intractability, and which we regard as a surgical problem.

We have observed that most of these patients have multiple ulcers and, strikingly, it is the posterior ulcer which produces the symptoms. The acid values are often high, and for this reason a gastroenterostomy is inadequate. A subtotal gastrectomy, including removal of the pylorus and the posterior ulcer, offers the surest promise of permanent relief. Even so, if the patient is of an unstable temperament, one may find it necessary to insist upon a regulation of diet for an indefinite period after operation.

GASTROJEJUNAL, MARGINAL, OR JEJUNAL ULCER; GASTROJEJUNOCOLIC FISTULA

Gastrojejunal, marginal or jejunal ulcers are observed, usually, in middle aged or fairly young individuals with high acid values who have previously had a gastroenterostomy for a duodenal ulcer. The reported incidence varies from two to 34 percent, the latter figure being reported by Lewisohn. The average is probably about six to ten percent.

The ulcer may appear within a few days after operation, or it may not become apparent for many years; the majority, however, develop within eighteen months. They are found, as a rule, on the margin of the stoma, especially on the jejunal side. A few of them bleed, and many produce the original ulcer symptoms, though the picture is generally a little atypical, the pain being slightly lower and to the left, more constant and severe, and rarely completely controlled by food and alkali. Operation in such cases should be carried out without undue delay.

If the pylorus is not obstructed by cicatrization and one can do a good pyloroplasty to widen the outlet, lessen pylorospasm and permit a reflux of the jejunal contents into the stomach, this may be done, the gastroenterostomy detached, and the opening in both the stomach and jejunum closed, restoring the continuity of the gastrointestinal tract to its original condition. This procedure, however, is justified only when the patient is in no condition for the more radical operation.

In all our cases, we have found it possible to take down the gastroenterostomy and excise the gastrojejunal ulcer, or resect the jejunum and make an end-to-end anastomosis, and then perform a subtotal gastrectomy, including the pylorus and the ulcer-bearing zone. This is a formidable procedure under the circumstances, but relief is usually complete.

One of the reasons for early operation in the presence of gastrojejunal ulcer is the danger of perforation into the colon. This disaster occurs in approximately 11 percent of gastrojejunal ulcers and is the most serious of all the complications of duodenal ulcer. The mortality is exceedingly high. One should therefore bear in mind the possibility of a perforation when a gastrojejunal ulcer develops. If the condition is recognized in time, the gastroenterostomy should be disconnected, the colon freed at the site of the fistula, and closed, and the stomach resected.

We have operated upon a total of 47 patients with intractable and obstructive duodenal ulcers within the past nine and one-half years. Of this number, 15 had a gastroenterostomy, 12 a pyloroplasty, and 20 gastrectomy. Of the 15 who had gastroenterostomy, two have since developed clinical signs of recurrence, while four who had pyloroplasty have a reactivated ulcer. One patient for whom a gastrectomy was performed had persistent symptoms for several months, though he is now entirely free of any disturbance. This resection included only two-fifths of the stomach and was the only one in which less than half the organ was removed.

It may be mentioned that nine of the 20 patients with chronic ulcer who were treated by gastrectomy had had a previous operation: five a pyloroplasty, two a gastroen-

terostomy, and two a closure of a perforation. The last two patients had a gastrojejunal ulcer with an associated colon fistula. One of the two died, this being the only fatality in the entire group of 47 chronic ulcers. Another of the recurrences for which gastrectomy was done was that of a man who had previously had two gastroenterostomies, and at operation was found to have both a duodenal and a gastrojejunal ulcer.

COMMENT

As the years have gone by and the principles of the surgical treatment of duodenal ulcer have been more clearly determined, it has become obvious that removal of an ample amount of the acid bearing portion of the stomach, together with the pylorus and the lesion itself, is by far the procedure of choice for intractable and bleeding ulcers. As this fact is more widely appreciated in the future, fewer gastroenterostomies will be done in the presence of high acids and an open pylorus, and we shall have fewer recurrences.

REFERENCES

1. Allen, Arthur W.: Hemorrhage Associated with Ulcerating Lesions of the Stomach and Duodenum, Lahey Birthday Volume, Charles C. Thomas, Baltimore, p. 13.

2. Blackford, J. M., and Williams, R. H.: Fatal Hemorrhage from Peptic Ulcer, J. A. M. A., 115:1774, Nov. 23, 1940.

3. Finsterer, H.: Surgical Treatment of Acute Profuse Gastric Hemorrhage, Surg. Gynec. & Obst., 69:291, Sept., 1939.

4. Graham, Roscoe R.: Indications for Subtotal Gastrectomy for Duodenal Ulcer, Lahey Birthday Volume, Charles C. Thomas, Baltimore, p. 203.

5. Wangensteen, Owen H.: The Problem of Surgical Arrest of Massive Hemorrhage in Duodenal Ulcer, Surgery, 8: 275, 1940.

Scarlet Fever Immunization: II The Dick's Injection Method

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Scarlet fever immunization has been in use sufficiently long[1] to afford ample opportunity for critical evaluation and the only antigen to emerge from two or three decades of clinical experience is that of Dick and Dick which we have used exclusively for sixteen years. We[2] recently considered other methods than the subcutaneous injection method of the Dicks and concluded that all other methods were either inferior or had not been clinically proved. Only the Dicks' subcutaneous method has stood the critical clinical test of half a generation.

The use of the Dicks' toxin was early found to possess a number of defects which, while not at all peculiar to scarlet fever immunization, were negative aspects nevertheless, especially for a new and untried procedure. These criticisms we group under the following divisions: 1. Efficacy and duration of immunity, at first unknown, now fairly certain; 2. Adverse reactions; 3. Too many injections; and 4. Dependability of the Dick test. We attempt herein to answer, at least partially, some of these questions with reference to the Dicks' subcutaneous injection method.

EFFICACY AND DURATION OF IMMUNITY

Nearly all authors attest the satisfactory efficacy and specificity of scarlet fever immunization. Table 10 presents the findings of some of these authors' with reference to effectiveness. The results in each experiment are compared with a control group. The "control index" indicates the frequency, or incidence, of the disease in the non-immunized as compared with the Dick negatives, the non-immunized having the disease from four to 211 times as frequently as the immunized.

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Table 1

Index of Scarlet Fever Incidence in Immunized
As Compared With Non-Immunized Controls.[3]

Authors 3	No. Cases Immunized	Percent Immunized	Having Scarlatina Number	Having Scarlatina Percent	Period Observed	Control Index
Toomey 3(a)	1273 (nurses)	92.7	10	1.0	2-7 yrs.	(†)
Rappaport 3(b)	222 (nurses)	100	0	0	10 yrs.	(†)
Anderson Reinhardt 3(c)	1038 (nurses)	100	7	0.6	9 yrs.	4
Place 3(d)	1446 (nurses)	(†)	3	1.3		6
Platou 3(e)	164 (nurses)	100	0	0	4 yrs.	8 (†)
Anderson 3(f)	298 (nurses)	100	0	0		30 (†)
Toyoda et al 3(g)	7,000 (general)	60 to 85	1	0.1	6 yrs.	43 (gen. pop.)
Dick & Dick 3(h)	836 (school child.)	100	0.3	0.037	4½ yrs.	173 (2635)
Dick & Dick 3(h)	3,725 (school child.)	100	0.3	0.009	10 yrs.	211 (1595)

Some authors[4] recommend scarlet fever immunization for the control of epidemics, the same as small pox vaccination is used, and Dick and Dick[4] state that by the proper approach an epidemic of scarlet fever may be put under control in 48 hours. We have immunized completely or incompletely over 500 private cases, some few in the face of intimate exposures, and the results have been uniformly good. In no case of a negative Dick test, after immunization by the Dicks' method, have we ever found clinical scarlet fever. It should be remembered that in our area scarlet fever has declined in severity until recently, but even where the disease was rampant or fulminating the results are wonderfully good as reported by Toyoda and associates[5] in Manchuria. They report only 1/43 as many having scarlet fever in the immunized as among the non-immunized! The highest total dosage used by these investigators was only 40,000 STD*!

In the early investigations it became apparent that the quantity of toxin employed was the most important factor in the immunity process, i e., the more the antigen the more the resulting immunity. Hence, The Scarlet Fever Committee has increased the antigen content of the toxin from time to time according to the following table, and in evaluating immunization efforts the lower dosage of the earlier years should be borne in mind:

We have used the above dosage with only occasional individual modifications from time to time since 1926 and have exclusively used toxin approved by the Committee and prepared by E. R. Squibb and Sons.[6] The following table shows our results to be 86 percent immunity for five to ten years and 84 percent from 13 to 15 years:

Table 2

Dosage of Scarlet Fever Toxin for Immunization[6]

Years	1st dose	Second	Third	Fourth	Fifth	Total STD* (Average)
1925-27	500	1,500	5,000	15,000	30,000 35,000	50,000
1927-36	500	2,000	8,000	25,000	80,000	116,000
1936-39	500	2,000	8,000	25,000	80,000 100,000	125,000
1939-42	650	2,500	10,000	30,000	100,000 120,000	150,000

*STD—Skin test dose.

Various authors (Table 4) report negative Dick Tests from 72 percent to 92 percent for four to 15 years. These figures indicate a very effective immunity over the years.

Table 3

Redicks from 5 to 15 Years After Immunization
(Subcutaneous Method)

5 to 10 Years			13 to 15 Years		
No. Dick Negative	No. Dick Doubtful or Positive	Percent Dick Negative	No. Dick Negative	No. Dick Doubtful or Positive	Percent Dick Negative
43	7	86	25	5	84

and we have seen no report of diphtheria immunization any higher for a similar period of time, as shown in Table 5 for some recent authors:

Table 4

Degree of Scarlet Fever Immunization

Authors	7	Years	Type of Antigen	Percent Immunity
Veldee and associates	7(a)	4	Modified toxin	80%
Toomey	7(b)	5	Regular	72%
Dicks'	7(c)	12	Regular	92%
Author		15	Regular	84%

ADVERSE REACTIONS

Adverse reactions constitute the bane of any immunization procedure and we know of none without some such undesirable features. In our experience we should place them as follows: (1) small pox vaccination as the

Table 5

Degree of Diphtheria Immunization[8]

Authors 8	Years After Immunization	Number Cases	Number Positive	Type Antigen	Percent Negative
Schwartz & Janney (1938) 8(a)	8-9	145	32	Toxoid	78
Benjamin, Fleming and 8(b)	5-11	335	50	Toxoid 3 inj.	85.1
Ross (1940) Schwarz (1941) 8(c)	3-10	308	64	All types	79.2

worst and most consistent offender; (2) typhoid; (3) whooping cough and scarlet fever; (4) diphtheria-tetanus toxoid combined (alum pptd); (5) diphtheria toxoid; and (6) diphtheria toxoid-whooping cough vaccine (combined).

In vaccination against small pox and typhoid we have come to expect reactions of some moment while in diphtheria we are surprised when they do appear. In Table 6 we present a summary of reactions in 200 consecutive cases in ten years, 1926-1936.

Table 6

Reactions in Scarlet Fever Immunization

Total Number Cases	Local		General		Severe		Local & General (incl. severe)	
	Number	Percent	Number	Percent	Number	Percent	Total Number	Total Percent
200	19	9%	32	16%	10	5%	61	30%

All the above immunizations were done with the old toxin. The new improved toxin was not available until about January 1, 1939, since then the incidence of reactions has been much reduced and we have had no severe reactions and only two or three of moderate severity have occurred, so that our percentage of reactions has been reduced to about ten percent including one percent moderate and the severe to nil. Some authors report reactions in only ten percent of patients and we have no satisfactory explanation for our higher rate of reaction, but are pleased with our reduction to the average generally reported.

We have noted certain characteristics of these moderate or severe reactions that are peculiar to scarlet fever immunization. The vomiting may become retching to disappear shortly. The depression may be lethargic in type, the same as in the disease, but for only a few hours after which it clears promptly. The fever may rise to 104 to decline shortly to normal. This occasional intensity of reaction is peculiar, being due of course to great sensitivity to the toxin and is at times alarming to the parents and disturbing to the attending physician. In our experience no ill effects have resulted. We have previously pointed out the possibility of poor immunization results in those who have had bad reactions and we then "concluded that the more severe the reaction probably the poorer and more ephemeral will be the immunity."[2]

Whenever reactions occur the next dose of toxin should be reduced according to the severity of symptoms encountered and it may occasionally be necessary to give more than the usual five injections. Some authors feel that a large, strongly positive Dick test indicates directly, in addition to little or no immunity, one's cellular sensitivity to the toxin; hence they give smaller doses, at least

at first, until such predisposition has been shown to be absent. In our experience, except for this intensity of reaction that occurs in about one percent or less of cases, the reactions in scarlet fever, immunization are much over-rated and do not occur as frequently or as severely as in small pox, and, of course, the intensity aspect is not to be compared to small pox vaccination encephalitis.

TOO MANY INJECTIONS

The five injections recommended for the regular immunization are one or two more than for any other such procedure. The single dose immunization is highly desirable, but small pox remains the only successful single-visit antigen. If too few injections of any antigen are given, even tho properl spaced, a low or insufficient antitoxic titer results which is of short duration. The poor results of one shot alum precipitated toxoid have become apparent in recent years, and likewise the old diphtheria toxin-antitoxin was found to be quite inadequate. The effectiveness, present or future, of any immunization procedure should not be sacrificed upon the alter of an insufficient number of injections. The works of Veldee and associates[7] offers some promise. They are using a modified antigen and employing three injections. Methods of immunization other than hypodermic injection for scarlet fever are in our opinion, quite inferior as shown by our report.[2]

THE DICK TEST

The Dick test in our hands, when the proper precautions are observed, is just as reliable as the Schick test. In our opinion, much of the criticism against the test may be due to unfamiliarity with it by those who use it only occasionally. It must be kept in mind that the interpretation of the Dick test is quite different from that of the very familiar Schick test, for, as the Dicks[5] so ably state, *"The commonest error of all is interpreting positive reactions as negative.* The tendancy to regard slightly or even moderately positive reactions as negative is due to familiarity with the Schick test, which is usually interpreted as negative unless there is induration. *Skin reactions with Scarlet fever toxin are never indurated.* They should be observed in bright light between 20 to 24 hours after the injection. Observations earlier than 18 hours or more than 24 hours are not reliable. The slightest flush or reddening, no matter how faint the color, constitutes a positive reaction if it measures as much as 10 mm. in any diameter. The color may be blanched by stretching the skin."

Whenever a Dick test is positive in an older child or adult, a control should always be used. Our procedure is to do the test and, if positive, repeat the test along with the control. This procedure affords a double check. Contrary to the Dick's findings that a positive Dick test is "never indurated," we found induration in about 15 percent of all positives and severer reactions (vesicle formation, painful edema, etc.) in one or two percent.

REMARKS

We have used the regular Dicks' subcutaneous method of immunization for over 15 years. From 1937 thru 1939 we largely used (on 59 cases) the intranasal spray method, but concluded it was rather inadequate and adopted the injection method. Also beginning in 1939, the improved toxin, made by a different method and containing less than one-sixth as much protein as the old, became available generally and with this material we have had a definite reduction in both the number of reactions (to ten percent) and in the severity (to less than one percent). We are pleased with the lack of known scarlet fever among those immunized by us. We place much reliance in the Dick test and use it frequently. While we recognize defects and imperfections in the immunization and the Dick test, we are trying to improve these by individual study and use. We are impelled to believe, from our experience and that of other authors, that scarlet fever immunization is as successful in its first 15 years as diphtheria immunization in nearly twice that period of time.

CONCLUSIONS

1. Scarlet fever immunization by the Dicks' subcutaneous injection method is quite effective and relatively safe.
2. The Dick test is quite dependable but its technical requirements are very exacting. It should not be used by the novice.

BIBLIOGRAPHY

1. July 1925, first license issued. Personal Communication from National Institute of Health to Author dated Sept. 22, 1941. Approved by Council on Pharmacy and Chemistry, A. M. A., J. A. M. A., 86:199 (Jan. 16) 1926.
2. Graham, Hugh C.: Scarlet Fever Immunization, 1. An Evaluation of Some Methods of Immunization Over a Fifteen Year Period, Southern M. J., 35:132 (Feb.) 1942.
3. (a) Toomey, John A.: Scarlet Fever Immunization, In Press, Annals of Internal Med.; (b) Rappaport, Benjamin: Active Immunization to Scarlet Fever with Less Reactions, J. A. M. A., 106-107 (1936); (c) Anderson, Gaylord W. and Reinhardt, Warren I.: Scarlet Fever Immunization of Nurses, J. Infech. Dis. 57-136 (1935); (d) Place, Edwin H.: Result of Active Immunization of Nurses Against Scarlet Fever, Am. J. Public Health, 28:137 (1938); (e) Platou, E. S.: Scarlet Fever Prevention by Immunization, J. Pediat., 5:531 (1934); (f) Anderson, Gaylord: Scarlet Fever Immunization with Formalized Toxin, Am. J. Pub Health, 28:123 (1938); (g) Toyoda, Taro, Moriwaki, Joji, Futagi, Yasno, and Okomoto, Mosahito: Practical Value of Immunization Against Scarlet Fever with Streptococcus Toxin, J. Infect. Dis., 46:219 (1930); (h) Dick, George F. and Dick, Gladys H.: Scarlet Fever, Yearbook Pub., Chicago, 1938.
4. Koehler, John P.: Recent Experiences in Scarlet Fever Control. Am. J. Pub. Health, 25:1359 (1935); Krumbiegel, Edward R.: Scarlet Fever Control, Am. J. Pub. Health, 28: 1096 (1938); Dick and Dick (see 3 (h) above); Lempriere, L. R.: Attempted Immunization in Public Schools, Brit, M. J. 2:450 (1935).
5. Toyoda et al: see 3 (g) above.
6. As supplied routinely to the Drug trade: Personal communication to author from E. R. Squibb and Sons, dated June 24, 1941.
7. (a) Veldee, M. V., Peck, E. C., Franklin, J. P., and Dupuy, H. R.: The Dick Reaction and Scarlet Fever Morbidity Following Injections of a Purified and Tannic Acid Precipitated Erythrogenic Toxin, Pub. Health Reports 56:957 (May 2) 1941; (b) Toomey, John A. and Dick and Dick, see 3 (a) and (h) above.

8. (a) Schwartz, A. B., and Jenney, F. R.: Need for Redetermining Schick Negativeness in School Children, J. A. M. A., 110:1734 (May 21) 1938; (b) Benjamin, Ben, Fleming, Grant, and Ross, M. A.: Results of Schick Test in Children One to Ten Years After Injections of Toxoid, Am. J. Dis. Child., 60:1304 (Dec.) 1941; (c) Schwarz, Edwin G.: Immunity to Diphtheria, Following Immunizations, Texas J. Med., 37:292 (Aug.) 1941.

9. Dick and Dick (see 3 (h) above) page 80.

DISCUSSION

J. T. BELL, M.D.

OKLAHOMA CITY, OKLAHOMA

There has been, and still is, a difference of opinion regarding the use of scarlet fever toxin for active immunization of children against scarlet fever. This procedure has not been as favorably received as diphtheria immunization has been, primarily because of the number of doses necessary for protection and because of the number of severe reactions which appear after one or more of the toxin injections.

However, as Dr. Graham's work demonstrated—that with refinement in the toxin has been a decrease in the proportion and severity of reactions. So now the question of which is worse—the risk of a reaction following inoculation with the Dick toxin, or the risk of contracting scarlet fever, can definitely be answered. It can be stated with certainty, that the incidence of scarlet fever is markedly less among inoculated persons than the non-inoculated. So I believe we can safely draw the conclusion that the reactions following the use of the new Dick toxin, should not influence our judgment against scarlet fever immunization.

At the present time we have another angle to consider, and that is the virulence of the present day type of scarlet fever organism, namely the mild type of scarlet fever that we have to deal with. I believe that all will agree that there has been a marked decrease in the virulence of the scarlet fever organism, and for the past ten years we see fewer and fewer cases of the severe type of scarlet fever.

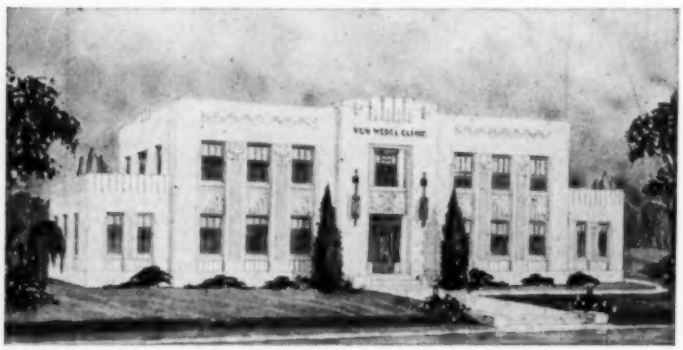
The Oklahoma reports on morbidity and mortality bear this fact out.

In 1931, there were reported 1490 cases, with 37 deaths. Since that time there has been a progessive decline, except 1936 when there were 1160 cases reported with 41 deaths, to 1941 when 859 cases were reported with five death. We cannot conclude, however, that this present trend will continue in Oklahoma, and in view of the shifting population that we now have—as compared to a previously relatively stable population—it seems doubtful that this trend will continue.

To the general practitioner and the pediatrician, the question of induced immunity is a difficult one. I believe there can be no doubt as to the value and desirability of scarlet fever immunizations; but, at the present time, the necessity for it cannot be regarded as of the same order as protection against diphtheria and smallpox.

I think the medical profession owes Dr. Graham a vote of thanks and gratitude for his splendid work on this subject.

VON WEDEL CLINIC



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• THE PRESIDENT'S PAGE •

The demands being placed upon the medical profession during the present emergency must be given keen attention by organized medicine. Both State and County Medical Associations must take stock of their present medical personnel and the reserves that might be called up in the way of retired physicians and nurses.

The present emergency is and will continue to present a shifting population problem whose health must be given first consideration.

Small communities must continue to have medical attention for their inhabitants and yet the congregation in defense and war production areas of populations far in excess of the usual population will call for additional physicians for that area or well organized medical care by and through the members of the county society, acting individually and collectively.

Consider the problem analytically. There are ten cities of fifteen hundred population with one or two physicians. A hundred and fifty people move from these cities. This number leaving is not sufficient to warrant the removal of any of the medical personnel of that particular community. Now, assume that the hundred and fifty people from the ten cities all move into the defense areas of Oklahoma, Tulsa and Muskogee counties and you have a concentration of fifteen hundred people which must be rendered medical care.

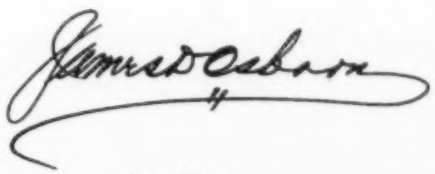
These problems are the responsibilities of the medical profession, the same as the production of steel, rubber and all raw materials are the problems of their respective industries. Government aid is also being given the profession the same as industry through the Procurement and Assignment Service.

The problems of medical care must be solved and it will only be through the efforts of the county societies that it will be accomplished.

I urge the county societies to meet each month and take up this urgent condition as the first and only order of business.

Ask yourself, "What is my county society doing?"

Sincerely yours,



President.

EDITORIALS

COMA AND LUNG ABSCESS

The Comatose patient presents serious therapeutic problems, but modern knowledge of physiology, pharmacology and anesthesia has contributed much toward the solution of these problems. In spite of increased knowledge and skill in the management of Coma, too little attention is given to the respiratory hazards. The skill of the Bronchoscopist and the trained Anesthetist with their mechanical aids to respiratory therapy is often urgently needed.

Greene[1] has significantly said, "The character and usually fatal complications of the comatose state (whether the coma is due to alcohol, morphine, ether, cerebral hemorrhage, or pneumonia,) if the coma is deep and lasts more than a few hours, are pulmonary edema and pulmonary infection. The factors which favor their appearance are so many that in any individual case it is difficult to single out a specific cause. Usually the pulmonary edema and infection are the result of the interaction of several pathological processes. Chief among these causes are: Aspiration, Partial respiratory obstruction, Generalized tissue edema, Shock, Anoxia and Primary pulmonary infection."

In profound Coma regardless of the cause, the chief danger arises through the absence of the cough reflex and the unopposed aspiration of infectious material. The frequent occurrence of aspiration pneumonia and lung abscess following tonsillectomy, extraction of teeth and other operations about the mouth and nasopharynx is a matter of common knowledge. This is chiefly due to the fact that the cough reflex, which stands guard between the trachea and the pharynx, is depressed or oblitered by anesthesia. It should be remembered that the same hazards immediately arise in every case of coma. The General Practitioner who first makes contact with casualty cases, unconscious from trauma of the central nervous system or asphyxiation from various anesthetic gases, should bear in mind the fact that the laryngeal "watchdog" is off guard and that the gravity run of pharyngeal infection is not only unopposed but expedited by the suction of negative intrapulmonary pressure. Often the latter is increased by obstructive factors resulting from marked muscular relaxation leading to retrocession of the tongue, close approximation of the vocal cords and pharyngeal walls and soon the further narrowing of the respiratory channels by the edema which accompanies anoxia, and the increased suction due to obstruction.

When the physician first reaches a case of profound coma he should give prompt attention to the danger of aspiration of infectious material and try to obviate the same by favorable posture and detailed attention to the task of clearing the mouth and nasopharynx of accumulated material and keeping the airways open. Considering this task plus attention to the other possibilities listed by Greene[1] it is obvious that the attending physician carries a heavy responsibility. If he is wise he will employ all available preventive means and in cases not promptly responding to treatment he will seek the aid of the bronchoscopist or possibly the anethetist. If coma is due to trauma of the central nervous system the Neuro-surgeon may be of great assistance. The bronchoscopic dislodgment of mucous plugs or other materials obstructing the airways may prevent pneumonia and abscess through the removal of infectious material and the preservation of general and local resistance by clearing the way for adequate oxygenation. In some cases the retention of an endotracheal tube may be essential. This reduces the inhalation of accumulated secretions, keeps the airway open and makes it easy to remove bronchial secretions by suction through a bronchial catheter. Only the experienced bronchoscopist or the anesthetist with modern training should be entrusted with the intratracheal tube, as the introduction and retention of the same, without skill and sound judgment, may lead to serious consequences. In addition to the aspiration infection, each of the pathological conditions mentioned by Greene,[1] and quoted above presents its own therapeutic, pharmacological, anatomical and physiological problems, requiring careful discrimination for intelligent solution and occasionally highly technical therapeutic measures. All of the above mentioned factors are important because of their inter-relationship in the causation of the major pathology.

The physician who lacks initiative and enthusiasm in connection with the above recommendations should carefully consider the high mortality obtaining in the broncho pulmonary infections due to aspiration, and make sure he is doing all he can to achieve better results. In this connection the use of morphine in the treatment of shock should be carefully guarded. The danger of pulmonary infections may be greatly increased by the too free administration of morphine.

1. Greene, Barnett A.: Recent Advances in the Care of the Comatose Patient. Annals of Internal Medicine, 1942, XVI, 727.

MANY TIMES THEIR WEIGHT IN GOLD

Under "current comment," the Journal of The American Medical Association, July 11, sounds a warning against the theft of narcotics and urges all physicians, hospitals and clinics to safeguard the stock now on hand.

Attention is called to the fact that the United States is cut off from the sources of supply because of the war and that smuggling is virtually at an end, and the demand for illicit traffic must be met by theft. The necessity for accelerated vigilence is pointed out and it is suggested that all active supplies be closely guarded and all reserve supplies be secreted, under lock and key.

The Bureau of Narcotics considers these drugs "critical and strategical war materials" and because of urgent need for the relief of pain in the armed forces, replacement of stolen supplies for civilian needs ultimately may be impossible.

This important warning closes with the following statement, "Thefts should be promptly reported to the narcotic district supervisor having jurisdiction."

PROGRESS IN PEDIATRICS

In this issue of the Journal there are two scientific articles which justify the above title. One deals with induced immunity by Vaccination and the other with Chemotherapy in a case of influenzal Meningitis.

In no other field has preventive medicine approached the rapid strides made in pediatrics. Lest we forget, attention is called to a significant discourse by Dr. Henry A. Christian[1] containing this startling statement. "Perhaps after all, a very complete success of preventive medicine may not be a complete blessing." Dr. Christian points out the fact that the recurrence of an infectious disease in a race, or a community, confers an acquired immunity which will be lost when the disease fails to recur — Even though adequate immunity is conferred by vaccination, the implication is, that we may develop a sense of false security and relax our vigilence only to witness the return of infectious maladies in malignant form. Obviously this might happen to an unsuspecting, unprotected generation.

Therapeutic advances in this field are almost if not quite as remarkable—The advent of the sulfonamides in the treatment of the acute respiratory infections as well as many other infectious conditions has greatly augmented the therapeutic score.

The most potent factor in the advancement in child welfare is the educational program which has resulted in the close cooperation between the pediatritician and the mother in the childs behalf. The pediatrician has had the basic wisdom to see that the psychological inoculation of the mother is fully as important as induced immunization in the child. Again we must give credit to the art as well as the science of medicine. Before leaving this subject it is interesting to note that Voltaire was influential in introducing Jenner's method of Vaccination in France and it may be said that Benjamin Franklin and Thomas Jefferson should have credit for exerting a similar influence in America.

The following significant statement came from Franklin's pen approximately one hundred years ago.

"In 1736 I lost one of my sons, a fine boy four years old, by the smallpox, taken in the common way. I long regretted bitterly, and still regret that I had not given it to him by inoculation. This I mention for the sake of parents who omit that operation on the supposition that they should never forgive themselves if a child died under it, my example showing that regret may be the same either way, and that, therefore, the safer should be chosen."

1. Dr. Henry A. Christian, Annals of Internal Medicine, Vol. 12, Page 1506, March, 1939.

THE NATIONAL PHYSICIANS COMMITTEE

It is the purpose of this Committee to see that Medicine in America continues to be American Medicine.

Those who appreciate present social and policital trends know that this Committee has a difficult task and that the successful performance of this task will depend upon the cooperation of the individual members of the Medical profession.

For the benefit of those who may not understand the relationship of this Committee to the American Medical Association, and for that reason may hesitate to lend their full support, attention is called to the fact that the Committee received the approval, commendation and support of the A. M. A. House of Delegates at the recent Atlantic City Meeting.

In addition to financial and moral support every doctor should forward the purposes of this Committee by his daily conduct and by taking advantage of every opportunity to instruct the average citizen in the principles of American Medicine, in the relationship of patient to doctor, in the freedom of choice and independence of action.

Thus the community doctor can wield a powerful influence. He should marshall his forces and employ his influence for the election of the candidates who have committed themselves to the task of preserving the fundamental principles of American Medicine, in order that the public may continue to have the full benefit of what medicine has to offer.

ASSOCIATION ACTIVITIES

PUBLIC WELFARE COMMISSION TO PAY FOR PHYSICAL EXAMINATION OF AID TO DEPENDENT CHILDREN APPLICANTS

The State Medical Association has been advised by Mr. Jess Harper, Director of the Public Welfare Commission, that beginning August 15, physicians will be paid a fee for the examination of applicants seeking assistance from the Aid to Dependent Children's Fund when such applicants are applying for reason of physical or mental incapacity.

The program worked out in cooperation with the Medical Advisory Committee to the department calls for the payment of a $3.00 fee for original examinations and $2.00 for subsequent re-examinations. Laboratory work will also be paid for when requested by the Medical Advisory Committee. The schedule of laboratory fees will be announced later.

Mr. Harper, in making the announcement, stated that applicants would at all times use their family physicians or the physician of their own choosing if they did not have a family physician. Mr. Harper also stressed the fact that arrangements for the examinations would be made through the County representative of the Welfare Department in such a manner as to cause the least possible disturbance in the individual physicians office time.

Full details of the program will be sent to all physicians as soon as possible.

The announcement as made by Mr. Harper also pointed out that the recommendations came from the Medical Advisory Committee and was adopted by the Commission in order to secure more complete examinations of the applicants by physicians where by in return, a more definite decision could be obtained as to whether the applicant was entitled to assistance.

It is believed that the new examination forms and payment of an examination fee will save many thousands of dollars for Oklahoma tax payers.

Members of the Medical Advisory Committee are: C. R. Rountree, M.D.; Walker Morledge, M.D.; A. R. Sugg, M.D.; Clinton Gallagher, M.D.; R. M. Shepard, M.D., and Moorman Prosser, M.D.

POSTGRADUATE COMMITTEE OPENS THIRD CIRCUIT IN INTERNAL MEDICINE

The postgraduate course in internal medicine has been a distinct success. Dr. L. W. Hunt, instructor, has proved to be a capable lecturer and demonstrator as well as a most practical and helpful consultant.

Detailed plans have been completed for lectures to the laity by Dr. Hunt. Officers of county medical societies and County Health Directors are urged to utilize these lay lectures among study and civic clubs and other groups wherever possible.

Postgraduate instruction has now been completed in ten teaching centers, as follows:

Circuit I		*Circuit II*	
Bartlesville	28	Ada	22
Miami	22	Durant	20
Pryor	15	Hugo	10
Vinita	12	Idabel	10
Claremore	8	Sulphur	8
Total	85	Total	70

Total number of physicians enrolled for two circuits 155.

The third circuit of five teaching centers will open in Muskogee, Okmulgee, Tahlequah, McAlester and Poteau the week of August 3. Total enrollments for these centers thus far are 73. Indications are that others will enroll during the first and second weeks of the course. This circuit will also include a teaching center at Camp Gruber where from 50 to 100 Medical Officers will attend.

The entrance into military service of so many physicians has increased the burden on those remaining. They are all too busy to leave their practice for postgraduate study away from home, but find our program very convenient and of great aid.

The Associated State Postgraduate Committees, in their deliberations this year at Atlantic City, met with the Council on Industrial Health of the American Medical Association. The latter suggested that the various states and agencies sponsoring postgraduate instruction under the extension plan consider including industrial medicine and surgery in their programs during the war period. This is necessitated by the rapid expansion of defense industry in smaller communities, which will require larger numbers of physicians adequately trained in industrial health. Incidentally, it should be known by the physicians of our state that Dr. Henry H. Turner, Chairman of our Oklahoma Postgraduate Committee, was elected Chairman of the National Associated State Postgraduate Committees this year.

SOUTHERN MEDICAL MEETING TO BE HELD

The Executive Committee of the Southern Medical Association, following its May 15 meeting in Richmond, Virginia, has announced that the 1942 meeting will be held November 10, 11 and 12.

Changes made in this year's program cut the number of days from four to three. The twenty one sections will conclude their programs in two days instead of three and the time alloted for the presentation of papers will be cut from twenty minutes to fifteen, with discussion reduced to three minutes instead of five.

The first day, Tuesday, will be Richmond Day and will be a series of clinical presentations by Richmond physicians. The sections of the Association will then convene the following two days.

The Executive Committee and officers of Southern Medical Association should have the wholehearted support of Oklahoma physicians in their determination to keep this outstanding scientific assembly available for continued postgraduate study particularly when the need is as great as it is in the present emergency.

Every Oklahoma physician who believes that he may be in a position to attend should make his reservation at once.

The Hotel John Marshall has been designated as headquarters.

MARRIAGE OF DR. WILLIAM L. TAYLOR, HOLDENVILLE, ANNOUNCED

The announcement of the marriage of Dr. W. L. "Bill" Taylor of Holdenville, was made to the office by the appearance of the bride and groom returning from their honeymoon in Texas.

Since we had not been fore-warned of the approaching event, we were a little excited and neglected to find out Mrs. Taylor's maiden name.

We sincerely hope that the new duties of the home will not prevent Dr. Taylor from continuing to be the first to register for both, The Annual Meeting and the Oklahoma City Clinical Society.

View of Bassinets where Polyclinic Babies Get Off to Good Start.

CHEERFUL NURSERY IS AIR CONDITIONED

Polyclinic's nursery is a delightful place. It is refreshingly air conditioned from a central plant, which assures reliable temperature and humidity control. Fretfulness caused by heat discomfort is unknown here. Isolation technique is maintained for each bassinet.

Equipment is such as to assure absolute purity and cleanliness. The closest attention is paid to nursing care and proper feeding. In every detail adequate attention for the newly born infant is stressed.

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FIFTH ANNUAL EXHIBITION AMERICAN PHYSICIANS' ART ASSOCIATION

New Officers

President ..... Samuel Gellert, M.D.
Vice-President ..... Max Thorek, M.D.
Secretary-Treasurer ..... F. H. Redewill, M.D.

The fifth annual exhibition of the American Physicians' Art Association was held June 8-12, 1942, at Atlantic City, N. J., in Convention Hall, under the same roof with the American Medical Association.

This exhibition was enthusiastically acclaimed the most attractive one of the entire convention, as evidenced by the fact that the 40' x 60' room was filled with visitors at all times. There were 350 original art works, a large number considering war time. Seventy-three prizes were awarded, so that every contestant felt that he had a chance to win an award, especially since the prizes were divided into four classes, according to the length of time the artist had been working: Class A, over eight years; Class B, three to eight years; Class C, eight months to three years; Class D, under eight months.

Under the new rules, no artist may receive more than one award in one year. No private or commercial prizes are permitted, all prizes being the Association's.

One of the interesting developments of the exhibition was that physicians returned again and again, bringing along friends and families. In many instances, doctors' wives brought the doctors. The estimated attendance was 15,000, and it is doubtful that a single visitor to the Convention missed viewing the art exhibit.

The annual banquet was attended by 130 members and friends of the Association, this number being many times larger than at previous meetings. A feature of the banquet was an illustrated talk by Mr. Fred Weber on "Newer Technic of Painting."

Many former members of the American Physicians' Art Association rejoined, and over 200 new members were enrolled. It is not obligatory for a physician to be an artist; he may join either in hope, or simply because he appreciates art and wishes to encourage the physicians' art movement.

Mead Johnson & Company's ambition to make the American Physicians' Art Association self-sustaining will probably be attained when the membership reaches 1,000. The outstanding success of the 1942 exhibition has assured a firm foundation and augurs well for the future.

OKLAHOMA SURGEONS ENTERTAIN VISITING GUESTS

An interesting program was recently conducted in Oklahoma City for visiting surgeons from Minneapolis, Omaha, Kansas City, Wichita, Dallas, Little Rock, Fort Worth and Los Angeles.

Radical resections of the terminal bowel were done in two cases of complicated malignancies and a new technique was demonstrated for operating on atresia ani vaginalis infants.

Those participating in the program were Dr. Hugh Jeter, Dr. Harry Wilkins, Dr. Neil Woodward and Dr. R. L. Murdoch.

The visiting surgeons were entertained by a buffet supper given by the Doctors Dinner Club.

MORE OKLAHOMA PHYSICIANS IN ARMED SERVICES

The Journal will attempt to keep its Roster of Oklahoma physicians serving in the Military Forces accurately to date. Since the last list published, the following have been granted commissions in the Armed Forces.

ALFALFA

PARSONS, JACK F. ..... *Cherokee*

CARTER

CANTRELL, D. E., JR. ..... *Healdton*
VEAZEY, LYMAN C. ..... *Ardmore*

CHEROKEE

McINTOSH, R. K., JR. ..... *Tahlequah*

CUSTER

TISDAL, WILLIAM C. ..... *Clinton*
WOOD, J. GUILD ..... *Weatherford*

GARFIELD

MERCER, J. WENDELL ..... *Enid*
NEWELL, W. B., JR. ..... *Enid*

HUGHES

MUNAL, JOHN ..... *Holdenville*

KAY

HARMS, EDWIN M. ..... *Blackwell*
KREGER, G. S. ..... *Tonkawa*
NEAL, L. G. ..... *Ponca City*

McINTOSH

STONER, RAYMOND W. ..... *Checotah*

MUSKOGEE

DORWART, F. G. ..... *Muskogee*
NEELY, SHADE ..... *Muskogee*
SANDERS, H. U. ..... *Muskogee*

NOBLE

EVANS, A. M. ..... *Perry*

OKLAHOMA

ALLEN, GEORGE T. ..... 1200 *N. Walker*
BARB, T. J. ..... 318 *S. W. 25th St.*
BATTENFIELD, JOHN Y. ..... *State Health Dept.*
BEDNAR, GERALD ..... *Medical Arts Bldg.*
CHAFFIN, ZALE ..... *Municipal Bldg.*
FRYER, SAM R. ..... 119 *N. W. 5th St.*
MESSINGER, R. P. ..... 807 *N. W. 23rd St.*
SNOW, J. B. ..... 1200 *N. Walker*

OKMULGEE

COTTERAL, J. R. ..... *Henryetta*

PAYNE

MARTIN, JAS. D. ..... *Cushing*

PITTSBURG

BARTHELD, FLOYD T. ..... *McAlester*
MILLS, C. K. ..... *McAlester*

STEPHENS

WATERS, CLAUDE B. ..... *Duncan*

TULSA

BEST, RALPH L. ..... *Medical Arts Bldg.*
BRANLEY, B. L. ..... *Medical Arts Bldg.*
EDWARDS, JOHN ..... *Medical Arts Bldg.*
KORNBLEE, A. T. ..... 1307 *S. Main*
MATT, JOHN G. ..... *Medical Arts Bldg.*
MUNDING, L. A. ..... *Medical Arts Bldg.*
PORTER, H. H. ..... *Medical Arts Bldg.*
SWANSON, K. F. ..... *Springer Clinic*

WASHINGTON

GENTRY, RAYMOND C. ..... *Bartlesville*
RUCKER, RALPH W. ..... *Bartlesville*

WOODWARD

RUTHERFORD, V. M. ..... *Woodward*

The following physicians, not members of the Association, have also been called to the Military Forces.

CADDO

WILLIAMS, CLAUDE ..... *Anadarko*

ELLIS

SMITH, JOSEPH JAMES ..... *Shattuck*

LeFLORE

KLEIN, JACOB E. ..... *Talihina*

OKLAHOMA

ARCHER, GEORGE P. ..... *Oklahoma City*
BEATTIE, JAMES W. ..... *Oklahoma City*
BROWN, SPENCER H. ..... *Oklahoma City*
HARTFORD, WALTER K. ..... *Oklahoma City*
MACKEY, ABNER ..... *Oklahoma City*
MORGAN, VANCE ..... *Oklahoma City*
READ, WILLIAM TOLBERT ..... *Oklahoma City*
WINKELMAN, GEORGE WM. ..... *Oklahoma City*

PAYNE

HAWLEY, HUGH H. ..... *Saillwater*

TULSA

HOOVER, WILKIE D. ..... *Tulsa*

Employ your time improving yourself by other men's documents: So shall you come easily by what others have labored hard for.—Socrates.

MEDICAL PREPAREDNESS

Medicine and the War*

CONSERVATION OF MEDICAL SUPPLIES

The medical profession and hospitals of the country must practice the most severe economy possible in the use of supplies containing materials essential to the conduct of the war. Rubber, metals, fixed equipment, chemicals and drugs must be conserved to the utmost to make the supply last for the duration of the war. Rubber gloves, when torn, should be patched; rubber drainage material should be resterialized and used again. Adhesive plaster contains rubber. Two pieces should not be used when one will suffice. Better, yet, none at all should be used if a cotton bandage will be an adequate substitute. Unnecessarily large dressings should be avoided. Catgut must be conserved. Alcohol and other chemicals should be used as sparingly as possible.

It is expected that hospital supplies will be available in sufficient amount to meet the need of civilian patients, but only if those needs are reduced to a minimum. Enormus quantities must be supplied to the military hospitals and to our allies, despite the fact that the materials from which most of the articles are made are in demand for other purposes. Waste, however slight, must be scrupulously avoided.

This program has the endorsement of the Health Supplies Branch of the War Production Board.

Committee on Drugs and Medical Supplies

W. W. Palmer, Chairman; Perrin H. Long, Vice Chairman; Morris Fishbein, Evarts A. Graham (ex officio), Ernest E. Irons, E. F. Kelly, George W. Merck, O. H. Perry Pepper (ex officio), John G. Searle.

Subcommittee on Hospital and Surgical Supplies.

Evarts A. Graham, Chairman; C. W. Munger, Mont R. Reid, Edward J. Sovatkin, G. W. Wallerich.

PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS AND VETERINARIANS*

QUESTIONS FREQUENTLY ASKED WITH ANSWERS OFFICIALLY RELEASED BY THE BOARD FRANK H. LAHEY, CHAIRMAN

GRADUATES OF FOREIGN MEDICAL SCHOOLS

1. Q. What can a graduate of a foreign medical school (aged 33, citizen) do to obtain a commission in some branch of the defense effort? What can he do to avoid being drafted as a private?

A. If such a man is willing to be dislocated for war effort, his best opportunity would be in industrial medicine and surgery or in some of the areas in which the department of public health is seeking to locate physicians. He might be able to obtain a commission with the Army if he complies with the recently formulated conditions for class B. medical school graduates.

MEN OVER 45—OVER 60

2. Q. What is the program for men of 60 years of age? For those between 45 and 60?

A. Men over 60 will be best utilized to take up the additional local load caused by the departure of younger men. Those between 45 and 60 would serve in this same fashion except in instances of specialists whose training makes them particularly desirable for the Army and who can obtain commissions granted for these special purposes.

OFFICE LEASES AND OTHER OBLIGATIONS

3. Q. What happens to office leases? Payments on instalment purchases. H. O. L. C. obligations?

A. The Soldiers' and Sailors' Civil Relief Act has been enacted by Congress to free persons in military service from harassment and injury to their civil rights during their terms of service and thus to enable them to devote their entire energy to the defense needs of the nation. The present law, however, does not apply to office leases; it applies to leases of property used for household purposes. Pending legislation does provide a method by which office leases may be canceled. Protection is afforded in the case of instalment contracts, mortgages, insurance premiums, taxes and the like. The law does not relieve you from liability but prevents the enforcement, to your detriment, of the terms of your agreement while you are in service. A detailed outline of the present law was published in The Journal of The Oklahoma State Medical Association, February, 1942, page 75. The pending legislation, which has already passed the House of Representatives, will further safeguard the civil rights of persons in military service.

SELECTED APPOINTMENTS

4. Q. Can one select service under a certain doctor?

A. No, but one may ask for service in a certain outfit and will have to run his chances of getting it.

CALLED BY SELECTIVE SERVICE

5. Q. What happens if a man has given his name to "Procurement and Assignment" and his name is drawn by the draft but he has not been called by Procurement and Assignment?

A. This man should appeal to his state Procurement and Assignment chairman to intervene on his behalf.

ENROLMENT AND ENLISTMENT

6. Q. Is the word "enrolment" interpreted as an "enlistment" in the terms of the act?

A. No.

PLACES FOR SPECIALISTS

7. Q. For this emergency you speak of, there are many of us between 37 and 45 who are willing to go at once if needed but are not certified with any board as specialists but are nevertheless capable. Should we then wait for the Procurement and Assignment service to place us?

A. Procurement and Assignment cannot place men. Such men should request commissions, giving their professional qualifications, and they may ask that the state chairman of Procurement and Assignment write a confirmatory letter for them.

INTERNSHIPS OF TWO YEARS

8. Q. What is the attitude toward the intern in hospitals where two years' internship is regular appointment?

A. Deferment for one year's internship is all that is allowed at the present time.

RESIDENTS

9. Q. What will be the disposition of residents in teaching hospitals connected with medical schools?

*Taken from The Journal of A .M. A., Volume 119, Number 14, August 1, 1942, Page 1113.

A. Procurement and Assignment is making efforts to preserve enough residents in teaching hospitals to carry on the hospital service and to assure a continuing supply of specialists.

ESSENTIAL TEACHERS

10. Q. I want to get into active military service, but my medical school where I am teaching says that I am necessary for that school. What shall I do? Will I be looked on as a shirker if I stay at home when my associates go and risk their lives?

A. This man should stay home unless he can provide his medical school with some one capable of taking his place and thus be released as available.

ASSISTANT TO A SURGEON

11. Q. In what way does the Procurement Board evaluate one who has been assistant to a surgeon for eight years in his total practice?

A. The Procurement Board would consider such a man suitable for service with a station hospital as assistant surgeon or ward surgeon.

ESSENTIAL ON HOSPITAL STAFF

12. Q. On what basis do you call a man essential at a hospital. What yardstick do you use to call men essential to the hospital staff? What should the man who is 48 years of age and is on the essential list of a hospital do as to volunteering to the government service?

A. Each hospital is supposed to make its own list of essential men, which is submitted to the state chairman of Procurement and Assignment. If he agrees, they are considered essential; if he does not, the hospital will be required to modify its list. Men on the essential list over 45 years of age should not volunteer except for highly special service.

PHYSICAL QUALIFICATIONS OF MEDICAL STUDENTS

13. Q. Should students who are not physically up to the army and navy standards be admitted to medical schools?

A. Yes. Failure to meet physical standards should not exclude promising young persons from medical education. Furthermore, this type of student may be highly important in the next few years to carry on hospital and teaching work.

OBSTETRICIANS

14. Q. What should men doing obstetrics do?

A. Men doing obstetrics should conform to the general requirements of their age group laid down for the rest of the profession.

FAILURE OF PHYSICIANS TO APPLY FOR COMMISSION

15. Q. If a doctor has been notified through Procurement and Assignment service that he had been selected and to apply for a commission, is it compulsory that he apply immediately? What if I don't answer questionnaire and enrolment blanks?

A. It is not compulsory. Certainly it is expected that physicians will cooperate; if they fail to do so, they are not doing what they should to aid our nation in meeting our great emergency.

LIMITED SERVICE

16. Q. Do you wish applicants who have physical defects but could work under limited strain?

A. Yes, if they can meet the requirements for limited service.

SPECIALTY SERVICES

17. Q. I had intended going into a specialty this summer and have been taking postgraduate work in that direction with the intention of taking a residency in that specialty this summer. Is there any way in which I can possibly get into that specialty through the armed forces—such as taking courses or a residency in one of the government hospitals?

A. If a man is commissioned in the Medical Corps of the Army he may request assignment to possitions where he could pursue a specialty, but there is no obligation, of course, on the Medical Corps to meet his request.

WAIVERS OF PHYSICAL DEFECTS

18. Q. If I have a physical defect and sign a statement to that effect in applying for a commission in the Army, do I thereby waive any benefits to which I might be justly entitled?

A. No. The Statement or affidavit does not constitute a waiver of any benefits. It is merely an acknowledgement of the existence of a physical disability which would, unless waived by the Army, preclude the granting of a commission to you. The statement you sign forms a basis of action by the Adjutant General's Office looking toward the waiver of your disability so that you may be accepted for military service.

Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of *refreshment.*

WOMEN'S AUXILIARY NEWS

Subscriptions to the "Bulletin," the official publication of the Woman's Auxiliary to the American Medical Association, have been ordered. The first issue of the fiscal year will be the Post-Convention number, which should be ready for distribution at this time. This periodical is published four times a year and not only contains information and suggestions from our National Officers but also has many interesting articles about our organization work in the forty other states which have auxiliaries. It is very beneficial in planning programs and furnishes many new ideas of ways to be of service to your community and to the medical profession. All county presidents, state officers and state committee chairmen receive their copies complimentary from the State Auxiliary. Please notify Mrs. James Stevenson, state secretary, if you have not received your Bulletin by September 1st.

OKLAHOMA COUNTY
OFFICERS AND COMMITTEE CHAIRMEN
1942-1943

President	Mrs. W. Floyd Keller	1213 Larchmont Lane, Oklahoma City
President-Elect	Mrs. G. E. Stanbro	220 Edgemere Court, Oklahoma City
Vice-President	Mrs. Walker Morledge	200 N. W. 18th St., Oklahoma City
Recording Secretary	Mrs. Allen G. Gibbs	2321 N. W. 25th St., Oklahoma City
Corresponding Secretary	Mrs. John S. Pine	423 N. E. 16th St., Oklahoma City
Treasurer	Mrs. Charles A. Smith	406 N. W. 22nd St., Oklahoma City
Assistant Treasurer	Mrs. B. E. Mulvey	2632 N. W. 27th St., Oklahoma City
Parliamentarian	Mrs. Neil Woodward	4301 Lincoln Blvd., Oklahoma City
Press & Publicity	Mrs. J. Powers Wolff	2816 N. W. 21st St., Oklahoma City
Program	Mrs. John F. Burton	1309 N. W. 19th St., Oklahoma City
Entertainment	Mrs. Gerald Rogers	220 N. W. 32nd St., Oklahoma City
Social Service	Mrs. R. Q. Goodwin	541 N. Hill St., Oklahoma City
Scrap Book	Mrs. Harvey Randle	413 W. Hill St., Oklahoma City
Membership & Visiting	Mrs. J. H. Robinson	836 N. W. 39th St., Oklahoma City
Transportation	Mrs. Wm. L. Bonham	536 N. W. 40th St., Oklahoma City
Flowers	Mrs. W .W. Rucks, Jr.	217 N. W. 19th St., Oklahoma City
Hygeia	Mrs. Jess D. Herrmann	1147 N. W. 38th St., Oklahoma City
Public Health & Relations	Mrs. Chas. R. Rountree	1215 Larchmont Lane, Oklahoma City
Historian	Mrs. M .M. Appleton	501 N. W. 35th St., Oklahoma City
Telephone	Mrs. John H. Lamb	4323 N. Georgia St., Okalhoma City
Emergency	Mrs. F. Maxey Cooper	248 N. W. 34th St., Oklahoma City

Oklahoma County

Under the leadership of Mrs. W. Floyd Keller, Oklahoma County is planning a very busy year. While a part of the membership, whose husbands are in the Service, will be away from home, there will be enough left to carry on the work of the auxiliary. The regular meetings do not start until October but the exectuive board and many of the committee chairmen will be busy during the summer months making plans for the winter. Mrs. Charles R. Rountree, chairman of Public Health and Relations, will also be the head of the war Work Committee. She and her committee will continue with the survey made last spring. This record will contain the information on all Red Cross and O. C. D. classes completed and the volunteer services given in the various phases of work of both organizations.

Tulsa County

Mrs. J. W. Childs, Tulsa County president, called an executive board meeting together in her home, 1616 S. Madison, on June 15. Mrs. Frank L. Flack, state president, was asked to meet with the board. Mrs Childs announced that her organization was complete, with all committees appointed. Although there is no regular auxiliary meeting until October, many of the committees are busy during the summer months planning their programs for the year. Mrs. C. C. Hoke, chairman of the War Aid Committee, has started a survey of the qualifications of all members. Each one is to report all Red Cross classes completed. Every member will be asked to keep a record of the number of hours of volunteer service they have contributed. This committee expects to complete the survey during the summer months but will keep it up to date by adding all classwork as it is finished. The Membership Committee, with Mrs. C. A. Pavy as chairman, are inviting all eligible doctor's wives to become members. They expect to have all dues collected before the Year Books go to press in September. Under the direction of Mrs. D. W. LeMaster, the Program Committee has met and discussed the work of their group. A Red Cross Nutrition Class has been meeting during the summer under the general supervision of one of the auxiliary members, Mrs. I. H. Nelson. Classes will be started in any other phase of Red Cross work, if enough show interest to warrant it. Mrs. N. Stewart White and Mrs. Frank L. Flack have successfully passed the Instructor's Course in First Aid but do not expect to be teaching before early fall.

Classified Advertisements

FOR SALE: Phorometer and Ophthalmometer Attached to Oculist's Chair, 40 Pair Trial Lens Set, New Project-O-Chart Complete, $650 Cash. Anyone interested should contact M. L. Whitney, M.D., Okemah, Oklahoma.

University of Oklahoma School of Medicine

At the annual meeting of the Faculty of the University of Oklahoma School of Medicine a Resolution was unanimously passed to the effect that the Faculty was in favor of accelerating the course in the School of Medicine and to take on additional duties. The recommendation of the Faculty was approved by the President of the University and the Board of Regents on June 1, 1942. As soon as the Legislature meets in 1943 and the additional funds which are required are made available, the school will begin to operate upon an accelerated basis, three semesters per annum, begining June 1, 1943.

The W. K. Kellogg Foundation has granted the sum of $10,000.00 for a loan and scholarship fund for students in the School of Medicine, and $4,000.00 for a loan and scholarship fund for students in the School of Nursing.

General Robert U. Patterson, Dean, addressed the students at the University of Texas School of Medicine at Galveston on June 5, on the subject "Military Medicine". General Patterson attended the meeting of the American Medical Association in Atlantic City June 8, to June 12.

Dr. Paul C. Colonna, Professor of Orthopaedic Surgery and Chief of the Orthopaedic Service in the University and Crippled Children's Hospitals has resigned his positions effective August 1, 1942, to accept the position of Professor of Orthopaedic Surgery in the University of Pennsylvania School of Medicine. Dr. Willis Kelly West, Associate Professor of Orthopaedic Surgery on the Faculty of the School of Medicine, has been appointed Acting Chairman of the Department of Orthopaedic Surgery and Acting Chief of the Orthopaedic Service in the Hospitals, replacing Dr. Colonna.

Dr. Bela Halpert has been appointed Director of the Laboratories of the University and Crippled Children's Hospitals, and Professor of Clinical Pathology in the School of Medicine. Dr. Halpert has held teaching positions in the Johns Hopkins University, the University of Chicago, Yale University, and more recently in the Department of Pathology and Bacteriology of the Louisiana State University School of Medicine.

Members of Evacuation Hospital No. 21, United States Army, received individual orders to report to Camp San Luis Obispo, California, on July 5, 1942. Personnel of this hospital unit is composed of members of the staff of the University and Crippled Children's Hospitals, many of whom are on the Faculty of the School of Medicine. The Unit will serve with Evacuation Hospital No. 53, United States Army, during maneuvers in that area during the summer months. The following is a complete list of the Professional Staff of Evacuation Hospital No. 21, United States Army:

Lt. Col. Herbert Dale Collins; Major Bert Ernest Mulvey; Major George Henry Kimball; Major John Powers Wolff; Major Ward Loren Shaffer, Dental Corps; Major Paul Brann Lingenfelter, Clinton, Oklahoma; Major Robert Leonard Noe; Major Jess Duval Herrman; Major Austin Holloway Bell; Captain Robert Bruce Howard, now on active duty at LaGrade General Hospital, New Orleans, La.; Captain Floyd Smith Newman, Shattuck, Okla.; Captain Cecil Willard Lemon; Captain Rudolph Joseph Reichert, Moore, Okla.; Captain John Frederick Kuhn, Jr; Captain Ray Harvey Lindsey, Pauls Valley, Oklahoma; Captain Evans Edward Talley, Enid, Oklahoma; Captain Samuel Ewing Franklin, Broken Arrow, Oklahoma; Captain Jim Mabury Taylor; Captain Everett Baker Neff; Captain Chester Randall Seba; Captain William Ward Rucks, Jr.; Captain Allen Gilbert Gibbs; Captain John Millard Robertson; Lt. Felix M. Adams, Jr.; Lt. John Andrew Graham; Lt. Daniel Bester Pearson; Lt. John Dewitt Ashley; Lt. D. L. Bedford; Lt. Owen Royce, Jr.; Lt. Marion Allen Flesher; Lt. Harvey M. Richey.

Unfortunately, Lt. Col. Collins, Organizing Director of the unit, was ill and could not report for active duty with other members. Major Bert S. Mulvey, the next in rank, was appointed Acting Organizing Director and will act in that capacity until Lt. Col. Collins has recovered and is able to report for duty.

Dr. Irwin C. Winter, Associate Professor of Pharmacology, resigned effective June 30, 1942, to accept a position as Medical Consultant with the Council on Pharmacy and Chemistry of the American Medical Association.

Dr. A. A. Hellbaum, Associate Professor of Physiology, has been granted a leave of absence for further study at the University of Chicago.

Dr. Carl A. Bunde, Assistant Professor of Physiology, has resigned to accept the appointment of Assistant of Physiology at Baylor University School of Medicine, Dallas, Texas.

Dr. Irvin S. Danielson, Associate Professor of Biochemistry, has resigned to accept a position with the Lederle Laboratories, New York City.

• *OBITUARIES* •

Dr. Francis C. Myers
1880-1942

"If you wish the pick of men and women, take a good bachelor and a good wife."—R. L. Stevenson.

Dr. Francis Charles Myers, since 1920 a general practitioner of medicine and surgery in Tulsa, was found dead in his apartments on Sunday, June 7, by the maid who cared for his quarters in the Daniel Building.

Dr. Myers was 62 years of age and unmarried. He saw active service overseas in World War I, having the rank of Captain in the Medical Corps, and was attached to Field Hospital No. 5. When the period of hostilities was ended, he moved into Germany with the Army of Occupation, and served six months in Rhenish Prussia.

Returning to this State in 1919 he resumed his interrupted practice in Broken Arrow, from which city he enlisted, for one year prior to his move to Tulsa. Although his professional services were those of a general practitioner, his preference was Surgery, at which specialty he was very adept.

Of a quiet and retiring nature, a rather gruff manner concealed a kind heart and marked diagnostic skill. He was ever ready to answer the call of the sick and afflicted of our city, and was a staunch and loyal friend to many of us of the medical fraternity, who grieve at his passing.

Dr. Myers is survived by two brothers, Homer Myers of Boston, Mass., and M. T. Myers of Oklahoma City and one sister, Mrs. Homer Keegan, also of Oklahoma City.

Resolution

WHEREAS, Francis Charles Myers was for a period of 22 years an ethical and respected member of the Tulsa County Medical Society, and,

WHEREAS, the late Francis C. Myers was throughout this period a busy and skillful practitioner of the healing art in our city and county.

NOW, THEREFORE, BE IT RESOLVED by the Tulsa County Medical Society that in the death of Francis C. Myers the profession of Oklahoma and his associates of Tulsa have sustained a real and deep loss.

BE IT FURTHER RESOLVED that the Tulsa County Medical Society desires to publicly acknowledge the blameless career and professional ability of this valued member of our organization.

BE IT FURTHER RESOLVED that the foregoing Resolution be made an intimate part of Tulsa County Medical Society records and a copy of same be mailed to the near relatives of the deceased.

Roy W. Dunlap, M.D., Chairman
R. G. Ray, M.D.
S. C. Venable, M.D.—Committee.

Dr. Henry C. Childs
1878-1942

"My pity hath been balm to heal their wounds;
My mildness hath allayed their swelling griefs."
—Shakespeare.

Late on Thursday evening, at his attractive home, 2124 South Peoria, the final summons came to one of our veteran ear, nose and throat specialists, Dr. Henry C Childs.

Ill for several years with a crippling heart lesion, he had been forced to drastically curtail his busy labors and proceed at a more leisurely pace. But just the week preceding his death he had attended the State Medical Convention at the Coliseum and had performed a number of tonsillectomies at the County Charity Clinic.

A lover of flowers, his home on South Peoria, with its rolling lawns and varigated blossoms was one of the showplaces of the Garden Club.

He carried his love of the beautiful also into his religion, that of Unitarian—whose belief include love of God; brotherly affection for our fellowmen; the diffusion of knowledge; meditation on the gems of literature; tolerance of the religious opinions of others; and the hope of eventual salvation of all humanity.

Thrice married, the worthy doctor leaves to mourn his passing, his widow, and a step-daughter, Betty, of the home; two sons—Dr. Darwin Childs of 2126 E. 15th Street and Dr. Jack Childs of 1205 S. Evanston; and six grandchildren.

Resolution

WHEREAS, Henry C. Childs was for over twenty-five years an active and capable member of the Tulsa County Medical Society, and

WHEREAS, during this long period, in addition to his busy practice he gave freely of his time and talents to the School Board, the Charity Medical Clinic and many other worthy causes.

NOW, THEREFORE, BE IT RESOLVED by the Tulsa County Medical Society that the passing of H. C. Childs is a distinct loss both to our local organization and to the city in which he practiced his profession.

BE IT FURTHER RESOLVED that the Tulsa County Medical Society takes this method of expressing to the medical profession of the State and to the bereaved family its sincere regret over the death of one of our untiring practitioners and faithful public servants.

BE IT FURTHER RESOLVED that a copy of this Resolution be spread upon the minutes of Tulsa County Medical Society and that a duplicate thereof be presented to the immediate relatives of Henry C. Childs.

Roy W. Dunlap, M.D., Chairman
R. G. Ray, M.D.
S. C. Venable, M.D.—Committee.

Robert M. Anderson
1870-1942

Robert M. Anderson, a pioneer physician of Shawnee, Oklahoma, died suddenly on July 16, 1942, while visiting his daughter in Marlow. Dr. Anderson had been apparently in good health preceeding his death which came as he had always wished, in his sleep.

Dr. Anderson was born on December 29, 1870, in Bedford County, Tennessee, where he was raised and attended primary schools. He was graduated from the Medical Department of Vanderbilt University in 1894 and after his graduation he started the practice of medicine in Florida but shortly returned to Tennessee where he practiced in Pulaski until he moved to Shawnee in 1903.

When the Pottawatomie County Medical Society was oragnized in 1905, Dr. Anderson was one of the charter members and founders and has held the office of President of the Society on several occasions during the past thirty-seven years.

Dr. Anderson is a past-president of the Oklahoma State Medical Association, and at one time was Chairman of the Section on Obstetries of the Southern Medical Association. At the time of his death he was Councilor for the state of Oklahoma for the Southern Medical Association.

He was a leader of the civic life of the community being a member of St. Paul's Methodist Church, Shawnee lodge No. 107 A. F. & A. M., the Shawnee Rotary Club, and the Board of Directors of the First Federal Building and Loan Association.

Dr. Anderson was associated in practice with two other pioneer Shawnee physicians, Drs. J. E. Hughes and F. L. Carson, since 1918.

The survivors include his wife, two daughters, four grandchildren, three brothers, one Dr. W. B. Anderson, a practicing physician in Nashville, Tenn., and two sisters.

Funeral services were conducted from the St. Paul's Methodist church in Shawnee on Saturday, June 18, which were conducted by Dr. Forney Hutchinson and Rev. R. E. L. Morgan, and were attended by many prominent physicians from over the entire state.

Dr. J. C. Bushyhead
1870-1942

Dr. Jesse C. Bushyhead of Claremore, the "Grand Old Man" of medicine in Northeast Oklahoma passed away at his home in Claremore, July 11, 1942, at the age of 72.

Dr. Bushyhead was known as Rogers County's most beloved citizen and was the original charter member of the Rogers County Medical Society.

Always preferring to be known as a country doctor he exemplified the highest traditions of the Medical profession.

He administered to the needs of the rich and the poor alike. Never was the storm too bad or the hour too late for Dr. Bushyhead to come to the bedside of the sick or injured.

In his passing, Oklahoma medicine loses a pioneer and a stalwart supporter. This loss can never be replaced though it may be superseded.

Dr. Bushyhead was born in Fort Gibson and moved to Claremore in 1891. He was a cousin of the late Will Rogers and a member of the Will Rogers Commission.

During his lifetime he had been honored by being elected to honorary membership in the Oklahoma State Medical Association and the Oklahoma Historical Society.

He was the last treasurer of the Old Cherokee Indian nation.

He is survived by his widow, Mrs. Faye Bushyhead; one daughter, Mrs. H. C. Riggs; and three sons, Dennis Bushyhead, Jesse C. Bushyhead, Jr., and George Davis Bushyhead.

About eight members of the Beckham County Society met July 1, in Elk City. They had as their guests, Dentists, Druggists, their wives, Nurses and Doctor's office help.

A round-table discussion was held following a banquet at the Casa Grande Hotel.

The next meeting will be held August 11, at Sayre. Dr. R. M. Slaubaugh will discuss "Enemia".

Members of the Pittsburg County Society met June 26, at the country home of Dr. Edwin D. Greenberger, in McAlester with 25 members present.

The program consisted of a barbeque supper and an evening of fellowship to honor Dr. Floyd Bartheld and Dr. C. E. Lively, who are leaving McAlester to enter the Medical Corps of the U. S. Army.

The society will meet in August, to hear a lecture on Post Graduate Medicine.

Group Hospital Service News

Approved Blue Cross Plans are divided into four brackets, according to the number of applicants enrolled. Recently Oklahoma's plan passed a milestone and moved out of the lower bracket to the third division. This low cost family protection has now been extended to 27,000 in Oklahoma, from whom more than 2000 days of hospital care have been provided. The employees of five hundred and fifteen firms have voluntarily enrolled in this plan. Group Hospital Service has been given approval for a third time by and is an institutional member of The American Hospital Association.

Non Profit hospital service plans are now serving an area comprising more than 80 percent of the population of America. The member hospitals of this national health movement contain over two-thirds of the total bed capacity of non-governmental hospitals in this country. There are 72 approved plans with a total membership of almost 11,000,000. The American Hospital Association estimates that these plans will pay hospital bills to the extent of $50,000,000.00 during the year of 1942. This amount is considerably greater than the combined revenue of all endowment capital, individual philanthropy, and from county, city and community funds combined, for these hospitals.

Prepaid hospital care without profit is a part of a great voluntary health movement. One of the most significant of our time. It's performance, even thus far, not only justifies its continued existance but proclaims it a social necessity. While the enrollment in these non profit hospital service plans is now measured by each new million members enrolled, still it probably is in it's infancy. The solution to the problem will not have been approached until the 11,000,000 members approximate 80,000,000 who would probably be carried on a compulsory federal program.

Today America's free hospitals are overshadowed by clouds of fear that deceptive hopes of superior federal service and easy government money might lead to bureaucratic regimentation. That shadow must be dispelled if the American system of free hospitals is to be preserved.

Because a federal health program has not been presented to congress in legislative form, we must not adopt a "wait and see" attitude. Informed observers believe that the formal presentation is retarded only to determine to what extent a voluntary plan will be adopted.

Even now the Blue Cross in Oklahoma should be a source of satisfaction to every member of the Oklahoma State Medical Society. Daily the plea is made to leaders of industry and groups of employees, to perpetuate our voluntary health system. The medical profession, hospital representatives and civic leaders who direct our plan are giving their time without pay. The continued cooperation of the medical profession can accelerate our growth and retard social regimentation.

The Southwestern Oklahoma Medical Society met June 17, at Elk City, to hear a program given by Dr. Edwin A. Abernathy, Altus, and Dr. Richard M. Burke, Clinton. Dr. Abernathy spoke on "The Use of Sulfamides in the Treatment of Suppurative Conditions of the Ear," and Dr. Burke on "Trends in the Collapse Therapy of Pulmonary Tuberculosis."

The next meeting of the Society will be held September 19, in Clinton.

Dr. J. E. McDonald, Tulsa, who has recently returned from Minneapolis where he has been studying the Kenny Treatment of Infantile Paralysis, gave a discussion on this subject at the Osage County Society meeting, held June 15, in Pawhuska, with 13 members present.

Lt. Tommy R. Young, of the Medical Corps of the U. S. Army, presented the Need of Doctors in Technical Training Command in the Air Corps and the opportunities offered.

The next meeting of the society will be held July 13, at Pawhuska.

Office of Civilian Defense

Organization in the Control System of the State Civilian Defense Committee on Health and Housing, which includes Emergency Medical Service, has been completed in the seventy-seven counties of the state. These various county organizations are not perfect. As time goes by, they will become more highly organized, and, therefore, more proficient.

The three disasters that have occurred within the state; namely, Pryor, Guymon, and Oklahoma City, have afforded a wonderful opportunity for work-out in these areas, which has made apparent any defects that might exist so that they could be corrected, as well as the good qualities of the work. Many inquiries from doctors over the state relative to the functions, duties, and responsibilities of the Emergency Medical Relief Service of Civilian Defense prompt the giving of the following information which will aid materially in clarifying all of these different phases of the work.

This information is taken from a joint statement coming from Norman H. Davis, Chairman of the American Red Cross, and James M. Landis, Director of the Office of Civilian Defense, under date of May 19, 1942, which was received in Doctor Mathews' office on July 13, 1942.

"To secure unity of effort and avoid duplication of facilities in meeting civilian needs arising from enemy action, this statement is issued by the Office of Civilian Defense and the American National Red Cross for the guidance of Defense Councils and Red Cross Chapters."

"It is the responsibility of local Defense Councils to see that adequate provision is made for all services required in the event of bombing or other enemy attack. During an emergency period, the Commander of the Citizens' Defense Corps will exercise control over all such services."

Emergency Medical Services

"During bombing or other enemy attack, all services are directed from the Control Center in charge of the Commander of the Citizens' Defense Corps."

The local Chairman of the Health and Housing Committee, in case of enemy attack, will be stationed in the Control Room as an assistant to the Commander of the Citizens' Defense Corps.

"*Responsibility for the care of those injured as a result of enemy action rests with the Emergency Medical Service of the Citizens' Defense Corps under the direction of the Chief of Emergency Medical Service.*"

"Red Cross Chapters assist the Emergency Medical Service by (a) recruiting and training Volunteer Nurses' Aides who will be utilized by the Emergency Medical Service at Base and Casualty Hospitals, Casualty Stations, and First Aid Posts; (b) furnishing lists of persons trained in first aid to be enlisted by the Emergency Medical Service as members of its stretcher teams; (c) *providing dressings, bandages and supplementary equipment as the Chapter may decide in consultation with the Chief of Emergency Medical Service;* (d) equipping and operating emergency ambulances to be assigned to the Emergency Medical Service and to serve under its direction; (e) providing supplementary transportation for walking injured and for Emergency Medical Service personnel. During the emergency period, ambulances and motor units assigned to such transportation service will be under the direction of the Chief of Emergency Medical Service or the Transport Officer. The Emergency Medical Service of the Office of Civilian Defense will not be duplicated by the Red Cross, but will be utilized by the Red Cross in natural disasters."

BOOK REVIEWS

"The chief glory of every people arises from its authors."—Dr. Samuel Johnson.

"ANOXIA—ITS EFFECT ON THE BODY." 1942. Directing Editor, Edward L. Van Liere, M.D. Cloth. Price $3.00. Pp. 269. The University of Chicago Press—Chicago. 1942.

In this breath-taking, calamitous age when every thinking person comtemplates being up in the air, down under the sea, or possibly in the bomb shelter, oxygen becomes an important consideration and the question of Anoxia becomes a matter of grave significance. Modern methods of Warfare, modern transportation and modern industry call for a more general and comprehensive knowledge of oxygen and its relationship to the vital functions of the human organism.

This knowledge has been assembled and made available by the author of this attractive book, published by the University of Chicago Press under the title "Anoxia". A glance at the table of contents suggests the comprehensive scope of the text and its application to present needs. Following an interesting preface the chapters are listed as follows: Historical, Definition of Terms, Classification of Anoxia, Expression of the Degree of Anoxia, Experimental Methods of Producing Anoxia, General Considerations, Effect of Anoxia on the Blood, Chemical Changes in the Blood During Anoxia, Effect of Anoxia on the Heart and Circulation, Effect of Anoxia on the Blood Pressure, Effect of Anoxia on the Lymph, Effect of Anoxia on Respiration, Mountain Sickness and Altitude Sickness, Acclimatization, Effect of Anoxia on the Alimentary Tract, Anoxia and the Secretions of Urine, Effect of Anoxia on the Endocrine Glands, Metabolism and Anoxia, Anoxia and Heat Regulation, Anoxia and Nutrition, Effect of Anoxia on Water Distribution in the Body, Effect of Anoxia on the Nervous System, and Index.

One has only to note the effects of Anoxia on the various organs, symptoms, fluids and tissues of the body to be impressed with importance of oxygen in the body economy.

After clarifying the approach to the subject by giving definitions and discussing types and degrees of Anoxia, the author considers the response of the physiologic processes to low oxygen tension and the variables at high altitudes.

The succeeding chapters, particularly those dealing with the circulatory system, the respiratory and the nervous systems, are of the greatest interest and importance to all doctors. The knowledge contained in these chapters, plus that found in the section devoted to mountain sickness and altitude sickness, is indispensible for the doctors in the Army and Navy, Medical Corps.

The Author's attempt to assemble all the known facts having to do with oxygen want and to make them readily available to all who read is most commendable. His citation of unsolved problems and his discussion of controversial questions should stimulate further research in this field.—Lewis J. Moorman, M.D.

"CLINICAL IMMUNOLOGY, BIOTHERAPY AND CHEMOTHERAPY." John A. Koler, Professor of Medicine, Temple University School of Medicine, Philadelphia; Director, Research Institute of Cutaneous Medicine, and Louis Tuft, Assistant Professor of Medicine and Chief of Clinic and Allergy and Applied Immunology, Temple University School of Medicine. Published in July, 1941 by W. B. Saunders Company, Philadelphia, 941 pages and illustrations. Price $10.00.

Vis Medicatrix Naturae used by our fathers of old, by modern interpretation, may be called Immunology. The understanding of this phenomennon is put on a lucid basis by the bacteriologist, biotherapeutist, serologist, and the chemist.

The author does not go into the minute details of this procedure but leaves it to specialized details in their respective fields, i.e., it is not a laboratory book. The book is divided into two parts. Part I is used by the senior author in lecturing to the sophomore students, while Part II is used by the authors in junior and senior years. This is a book which I think should be in the library of every physician and surgeon, and especially one engaged in public health work.

The fundamental ground-work in Part I necessarily must be understood before applying it to the efficient use of chemotherapy and the biologies, both of which have had such dramatic development in the last few years. These measures are so powerful in their effect that a basic understanding is paramount in the intelligent use of the same.

The latency and chronicity of bacterial infections, why the tissue susceptibility and localization, the natural immunity of some people and animals and the means of acquiring an immunity are all very basic in understanding disease, especially bacterial infections, whether it be local, general, acute, chronic, bacteraemia, septicaemia, pyemia or toxemia, such as we get from certain diffusible toxines which circulate in the blood stream and are chemotoxic for certain tissues. Lengthy description of todays proved prophylactic and innumerological methods. Methods of diagnosis and treatment of allergy are discussed at length and it is shown that it is dominant in many phases due to split proteids, both exogenous and endogeneous, typical and atypical. That is not ordinarily considered. The junior author is especially interested in allergy and is Chief of the Allergy Clinic of Temple University.

The chapters on blood transfusion therapy and nonspecific protein therapy which play such a role in the present treatment today, could have been given more space at the expense of subjects not so generally used. Fifty pages are devoted to the chemotherapy and is the last chapter of Part I.

Part II is devoted to "The Practical Applications of Immunity Biotherapy and Chemotherapy in Prophylaxis and Treatment of Disease." This having followed three basic principles and understanding when written by authors who practice bedside medicine, thus forming a liaison between research and clinical observation.

The chapters on the general considerations of septicaemia are worthy of thorough perusal. The ubiquitous streptococcus with its protein troubles, the testing of immunity as well as the many clinical symptoms, the chemotherapy and biologic therapy should be read by those in every special field of work. The same may be said about the staphlococci, meningococci, bacillary, virus, psittacosis and richettsial diseases.

A good feature is the summary of each disease at the end of the chapter. This is an outline such as is often shown on a projector for classroom demonstration.

These authors have the best of standing in medical circles, are voluminous and practical writers. This book is entirely new, and the only one of any magnitude on this subject.—Lea A. Riley, M.D.

"MODERN MEDICINE: ITS PROGRESS AND OPPORTUNITIES." Netta W. Wilson, Minnesota Department of Health, and S. A. Weisman, M.D., F.A.C.P., Clinical Associate Professor of Medicine, University of Minnesota. Cloth, Price, $2.00 Pp. 218. New York: George W. Stewart, Inc., 1942.

In this handy volume, the authors have undertaken a difficult task. The difficulties have been augmented by an attempt to give the historical background and to indicate progress with suggestions as to opportunities

for careers in various fields of scientific research. Naturally, much has been sacrificed in favor of brevity.

The historical approach is most commendable and in many sections of the text it has been employed with dramatic effect. But to one who reads with a knowledge of the history of medicine and even a meager understanding of the influence of disease upon the destiny of mankind, it appears that many opportunities to establish the continuity of medical progress have been overlooked. In addition, the well informed reader may wonder if the authors have not failed to adequately show the laborious methods and the untiring efforts which have motivated medical progress. The average layman would have a much better appreciation of the advantages which have accrued through modern medicine if he knew how it is steeped in the life blood of a long line of medical scientists, bent upon the acquisition of truth. In addition to certain omissions, there are a few historical errors. Among these are references to William Withering and William Osler. One page 94 we find the following:

But since Dr. William Withering in 1785 coaxed or bribed an old country woman of England to sell or give him a secret that she knew, we have possessed a way to prevent dropsy through the use of a powerful drug called "digitalis," made from the leaves of a flowering plant, the foxglove.

The following is quoted from Withering's own statement:

"In the year 1775, my opinion was asked concerning a family recipe for the cure of dropsy—."

It is true that Withering published his account of the foxglove in 1785, but the remarkable adequacy of his report is due to the fact that he devoted ten years to a careful experimental and clinical study of the action of digitalis before he assumed the responsibility of publication.

On page 11 we find the following:

After the Armistice we hasten back to America to see, if only for a moment, that great and beloved physician whose name is almost as meaningful in modern times as that of Hippocrates when the world was young. We find Sir William Osler—who will not long survive the loss of his only son in the war just ended—still chiefly concerned for the welfare of his patients.

At this time Sir William Osler was Reginus Professor of Medicine at Oxford University, where he had gone in 1905 after resigning his professorship at Johns Hopkins.

In justification of the task performed, it may be said that the text presents an interesting running story, containing a great store of valuable information about modern medicine made readily available for the lay reader, the prospective medical student and research worker, also for busy doctors who need a "refresher course" in the general progress of modern medicine.—Lewis J. Moorman, M.D.

"DISEASES OF THE RESPIRATORY TRACT." Jacob Segal, M.D., F.A.C.P., F.A.C.C.P., Attending Physician, Riverside Hospital; Associate Physician in Charge of Thoracic Diseases, Bronx Hospital; Formerly Physician in Charge of Fordham Hospital Tuberculosis Clinic. Cloth. Price $2.00. Pp. 172. New York: Oxford University Press, 1941.

The author has provided a valuable compendium on the diseases of the respiratory diseases. In this field, rapid development in diagnostic and therapeutic procedures keeps the medical student and the alert doctor constantly on the look-out for additional knowledge.

With the perennial prevalence of respiratory diseases and the seasonal accentuation of their importance constantly in mind, such a reference book should become the pocket companion of the medical student, the intern and the busy doctor. Those in need of immediate information and those who have read and forgotten, or who are too busy to read in great detail, will find in this handy volume the essential facts brought up-to-date.

On the other hand, this outline should not be considered as merely a short cut to knowledge. The author admits that isolated facts often suffer for want of amplification and proper association with related facts.

The following quotation from the Preface should serve as a guide for every one who makes use of this valuable outline. "One may read and absorb the descriptive text of a certain disease, yet fail to visualize the essential points clearly. The detailed exposition when read and reread attentively will leave a good general impression on the subject, but is apt to blur the salient and sequential delineation. An outline is calculated to help the reader systematize his thoughts on the subject matter he has read about extensively, and repeatedly in the textbook. It should be helpful to focus attention on essentials, and recall to memory the details in their proper proportion. I hope that the outline here presented will fulfill the aforementioned requirements."

The subject matter is presented in seven sections or chapters, with the following titles: *Diseases of the Nasal Cavities. Diseases of the Pharynx. Diseases of the Lymphatic Structures of the Pharynx. Diseases of the Larynx. Diseases of Trachea and Bronchi. Diseases of the Lungs. Diseases of the Pleura. Bibliography. Index.*

A careful perusal of the briefer but comprehensive text shows that the author, through a lucid style, has succeeded in giving us an accurate statement of facts in very few words. While the reader may occasionally regret the brevity necessary in such a book and note the omission of certain conditions, he must marvel at the store of knowledge made available in so few pages.—Lewis J. Moorman, M.D.

Columbia University announces Program

"Columbia University announces that begining September, 1942, a program of professional studies for the training of Physical Therapy technicians will be offered. This training and instruction will extend over a two-year period and has been organized in compliance with the requirements set down for such programs by the Council on Medical Education and Hospitals of the American Medical Association. The course is being set up in University Extension in close relationship with the College of Physicians and Surgeons of Columbia University, the Nursing Education and Health and Physical Education Departments of Teachers College. The Clinical and laboratory instruction will be given at the Vanderbilt Clinic, Neurological Institute, Presbyterian Hospital and New York Orthopedic Dispensary and Hospital."

"Two years or 60 semester hours of college, including courses in Physics and Biology, shall be required, or graduation for an accredited School of Nursing or an accredited School of Physical Education."

"A Certificate of Proficiency in Physical Therapy will be granted by Columbia University to those completing the course. Further information may be obtained by writing the Office of the Committee on Physical Therapy, Room 303B, School of Business, Columbia University, New York City."

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REVIEWS and CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments From
LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

"INFECTIOUS LESIONS ABOUT THE EXTERNAL GENITALS." By Mortimer D. Speiser, M.D., American Journal of Obstetrics and Gynecology, April 1942. Page 681.

The incidence of the various infectious diseases about the external genitals in the Bellevue Hospital series is given. Since some of these patients are taken upon the dermatological service the incidence is given for both the gynecological and the female dermatological services. They include: (1) Primary Syphilis with 1.4 per 1,000 admissions on the gynecological service and 11 per 1,000 admissions upon the female dermatology service. (2) Secondary Syphilis 0.9 per 1,000 admissions on gynecology and 269 per 1,000 admissions mostly with genitalia lesions on dermatology. (3) Combined primary and secondary 39 per 1,000 admissions. (4) Lymphogranuloma venereum 5.2 per 1,000 admissions on gynecology and 34.4 per 1,000 admissions on dermatology. (5) Granuloma inguinale 0.4 per 1,000 admissions on gynecology and 6.9 per 1,000 admissions on female dermatology. (6) Chancroid 0.8 per 1,000 admissions on gynecology and 9.1 per 1,000 admissions on female dermatology. (7) Condylomata acuminata 2.0 per 1,000 admissions on gynecology.

Each one of these conditions as well as gonorrhea is carefully described as to diagnosis with the following important routine:

"A positive diagnosis should never be made solely on the appearance of infected lesions about the external genitals. Grossly similar lesions may result from different etiologic factors. A single agent may be capable of producing variable lesions. Combined infections may be present. Therefore, pathognomonic characteristics are lacking so that an unequivocal diagnosis can be established only by the employment of certain routine procedures. These must include dark-field examinations and serologic tests, smears for Donovon bodies, Ducrey bacilli and fusospirochetes, intradermal tests with the Ducrey bacillary antigen and the Frei antigen, and last microscopic examination of tissue obtained for biopsy."

COMMENT: This article has been abstracted because of the confusion that has existed about infectious lesions of the external genitalia, both as to diagnosis and treatment. The concluding paragraph of the authors is particularly important in that they emphasize that an unequivocal diagnosis can be established only by the employment of certain routine procedures which they then enumerate.—W. L., M.D.

"NYLON SUTURE." D. W. Melick, M.D. Annals of Surgery, March 1942, Page 475.

In the year 1938, it was learned that the DuPont Company had developed a synthetic substitute for silk, called Nylon. It was then that the suggestion that it might be used as a surgical suture was brought forward. Since many surgeons are advocates of silk, it was thought that Nylon might find equal favor, should it have the qualities attributed to silk.

The physical characteristics of Nylon as compared to silk appear in the following table:

	Nylon	Silk
Relative tensile strength	1.3%	1.0%
Elongation	25.7%	12.9%
Loss in strength when wet	14.7%	25.4%
Approximate moisture content under standard conditions	3.0%	15.0%
Elastic recovery under controlled conditions	77.0%	65.0%

Nylon sutures may be obtained either as a single strand suture called monofilament, or a multiple strand suture, called multifilament. The multifilament looks and feels very much like silk. The monofilament is comparable to the commonly known "dermal" or "tension" suture or heavy silk worm gut suture.

The author, under the direction of Dr. E. R. Schmidt, professor of surgery, University of Wisconsin, carried out experiments on dogs in order to study the effect of various sutures, (catgut and silk as well as Nylon) in relation to tissue reaction and to the process of wound healing as ascertained by gross and microscopic study. Nylon monofilament, Nylon multifilament, silk, plain and chromic catgut were imbedded in the anterior abdominal wall of dogs, and, at intervals between two days and 103 days, biopsies were taken and paraffin sections made. Intestinal anastomoses were also performed for comparison between fine cromic catgut (No. 00000) and Nylon multifilament (No. 000).

The author summarizes his animal experimentations as follows:

(1) Nylon multifilament causes less reaction in the tissues (of dogs) than does catgut. In the earlier stages of healing Nylon multifilament causes more reaction than does silk. The end-result of the healing process is practically the same for both Nylon multifilament and silk.

(2) Nylon multifilament is not completely noncapillary. Monocytes were heavily infiltrated between the interstices of the suture, when examined at the end of 34 days.

(3) Nylon multifilament is superior to silk in that it has a better tensile strength for comparable sizes.

(4) Nylon monofilament causes less tissue reaction than any of the sutures studied. It is not so flexible as Nylon multifilament, is more difficult to handle, and has a tendency to slip when tied with the usual surgical knot.

On the surgical service of Dr. Schmidt at the University of Wisconsin Hospital in Madison, 19 herniorrhaphies were performed by various surgeons, using Nylon multifilament suture. The opinions voiced were favorable. It was agreed that the suture was comparable to silk in the way it handled. The greater tensile strength of the suture as compared with silk of a similar size was particularly noted by each operator. Wound healing was satisfactory in all of the patients upon whom Nylon multifilament was used as a suture. The incisions presented a minimal amount of reaction. The deep fascia and subcutaneous tissue was free of the diffuse induration noticed with catgut suture.

The author concluded that Nylon multifilament may be recommended as a satisfactory surgical suture. In this connection, he meant that it was satisfactory as a "buried suture."

COMMENT: We have been using Nylon monofilament for "stay or tension sutures" for the past two years. It has proved very satisfactory. Used as a stay suture, its tendency to slip when tied, can be overcome by multiple knots.

We have had no experience with Nylon multifiilament as a buried suture, but, if inclined to use silk, we would not hesitate to employ this suture as a substitute.—L. D. L., M.D.

"AN EVALUATION OF INTESTINAL SUCTION IN INTESTINAL OBSTRUCTION. J. B. Blodgett, M.D. Surgery. May 1942. Page 739.

The term "intestinal suction" does not mean "duodenal suction." As used here, intestinal suction applies only to those cases in which the Miller-Abbott tube, or other long tube, has definitely passed into the jejunum.

The author states that intestinal suction was introduced for the treatment of intestinal obstruction about four years ago. He refers to the work of Abbott and Johnson who published an article entitled "Intubation Studies of the Human Small Intestine" in Surgery, Gynecology, and Obstetrics in the year 1938.

The cases reported in this article by Dr. Blodgett are derived from a study of all cases of intestinal obstruction treated at the Peter Bent Brigham Hospital in Boston from 1933 to July 1941. To these he has added all available cases from the American Literature that satisfied the requirements of the classification.

In order to compare similar types of intestinal obstruction, two distinct groups were chosen for analysis: (1) Simple mechanical obstruction of the small or large bowel; (2) Intestinal obstruction associated with peritonitis. The mortality of these two groups is so different that it was necessary to consider them separately in evaluating any therapy applied to them.

"Paralytic ileus" not associated with peritonitis is too poorly defined a clinical entity to constitute a definite group for an analysis of this sort, although individual cases occasionally yield satisfactory results to intestinal suction.

Three hundred and six cases of mechanical intestinal obstruction were treated by the usual measures (including operation) but *Intestinal suction was not used.* This was considered a controlled series of cases and resulted in a mortality of 17.3 percent. One hundred and fifty-one cases of mechanical intestinal obstruction were treated by the usual measures (including operation) and *intestinal suction was used.* The mortality was 7.9 percent.

It appears, therefore, that when intestinal suction is added to the usual measures of treatment of mechanical intestinal obstruction, the mortality was reduced from 17.3 to 7.9 percent. This reduction in the mortality due to the use of intestinal suction is of undeniable significance and is not a difference due to the results of chance.

When peritonitis is associated with intestinal obstruction, the mortality is greatly increased. To evaluate the effect of intestinal suction on this condition, the Peter Bent Brigham Hospital cases were added to all acceptable cases appearing in the Literature. No distinction was made on the basis of the extent of peritoneal involvement. The total number of cases treated without intestinal suction and treated with intestinal suction is not large, because authors seldom list their cases of obstruction and peritonitis separately and satisfactory intubation is difficult in the presence of peritonitis. However, the difference in mortality percentages between these groups is highly significant. The mortality in the controlled series of cases with obstruction is highly significant. The mortality in the controlled series of cases with obstruction and peritonitis that were not treated with intestinal suction was found to be 73.1 percent. But the mortality in the same type of case when treated with intestinal suction was found to be 25 percent.

This evidence that the use of intestinal suction is an essential factor in reducing the mortality of intestinal obstruction has been corroborated by other workers.

Intestinal suction is an ideal physiologic treatment because it produces an outlet for the intestinal contents at a point just proximal to the obstruction. As the intestine is decompressed, the circulation is improved, the smooth muscle regains its normal tone, and the important function of nutrition may be resumed. When the pressure within the intestine is released, the volume of circulating plasma, which has been shown to be reduced in obstruction, is restored to normal. Reduction of the intra-abdominal pressure by the decompression of the intestine allows normal circulation in the great venous channels and normal diaphragmatic excursion. Preoperative decompression of the alimentary tract by intestinal suction may avoid the necessity of colostomy or enterostomy and presents the operator with undistended bowel of normal thickness and tone. Intestinal suction continued into the postoperative period protects the anastomosis by preventing intra-luminal pressure which might "blow-out" the suture line or impair its circulation.

The author wisely points out the absolutely necessary and all important point that the contraindications to the use of intestinal suction for obstruction should be emphasized.

There is danger in the routine use of intestinal suction. When a reasonable possibility of vascular stangulation exists, intestinal suction should not be resorted to except as preparation for immediate operation. The danger is that although decompression offers no relief for the vascular obstruction, it may mask the symptoms to such an extent as to minimize the urgency of operation which is the essential therapy for intestinal strangulation. The decision for immediate operation depends upon nice clinical judgment of all facts at hand. If strangulation cannot be ruled out, surgery should be advised. It is pointed out that intestinal intubation should not be attempted in cases of obstruction of the large bowel which show great distention of the colon and little or no evidence of distention of the small bowel. In such cases, the dangerous pressure on the colon cannot be reduced until the tip of the long tube has passed through the ileocecal valve. The passage of the tube through the whole small bowel may not be complete for days, and even then it may be impossible to get the tip to pass through the competent ileocecal valve. Accordingly, intestinal intubation is not the treatment of choice because the relief of pressure in the large bowel may be unwisely delayed.

COMMENT: It is probable that intestinal suction (as contrasted to duodenal suction) has not been used as wisely as it should be used, because of the extreme difficulty in successful intubation of the bowel beyond the duodenum. As stated by Whipple, "the reason that so many hospitals have failed to appreciate the value of the Miller-Abbott tube in dealing with cases of ileus is that no one person has learned the application and technique of the method and acquired the experience necessary to its success." I might add that the almost constant attendence upon such a patient that is necessary is probably another reason why the method is not in more universal use.

However, we must agree with the author that whatever effort is involved in acquiring and applying the technique is certainly justified by the fact that intestinal suction is a life-saving procedure as an adjunct to the treatment of obstruction.—L. D. L., M.D.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M.D.
911 Medical Arts Building, Tulsa

"CANCER OF THE ESOPHAGUS." By W. A. Mill. Laryngologist, Royal Cancer Hospital, London. Postgraduate Medical Journal, vol. 18, page 31-35, February, 1942.

Malignant disease of the esophagus is almost always carcinoma. Sarcoma is exceedingly rare, and of no practical importance. Until recently, this disease laid claim to a mortality of very nearly 100 percent.

More than half the patients complaining of esophageal symptoms are found to be suffering from esophageal carcinoma, and most of them in the older age groups. Car-

cinoma of the esophagus comprises about 5 percent of all cases of cancer.

Men are much more commonly affected than women (80%). Chronic irritations of the esophageal mucosa by alcohol, tobacco, hot foods and drinks and by dental sepsis are considered of importance in the development of esophageal carcinoma. The growth tends to appear at levels in the esophagus where there is some anatomical narrowing;—at the upper end, at the levels of the aortic and left bronchial crossings and the diaphragmatic constriction. It has been observed that esophageal carcinoma may follow peptic ulcers, cardiospasm, diverticulum, cicatrical stenosis, or it may also occur in the congenitally short esophagus.

In women post-cricoid carcinoma is fairly common. The Plumber-Vinson syndrome also predisposes to disease in this situation. Yet, such cancers truly belong to the hypopharynx and not to the esophagus.

The common types of esophageal carcinoma are: (1) epitheliomatous ulcer, (2) a fungating mass, and (3) a hard scirrhous annular exulcerating growth. The esophageal carcinoma may be also secondary. Thus, cancer of the thyroid, the larynx, trachea or bronchus, even the cancer of the stomach may extend to the esophagus. Primary cancer may arise from glands in the esophageal wall or from isolated dystopic patches of gastric mucosa which occur there.

Most of the tumors are to be found in the middle part of the esophagus, fewer in the lower part, and still fewer in its upper part. The growth spreads round the esophageal wall and also longitudinally, and the various layers of the wall are successively involved until the surrounding structures become invaded.

In untreated cases metastases in the lymphatic glands are less common than might be expected (50%). The supraclavicular glands on both sides may be affected, also the glands round the left gastric artery and in the lesser omentum.

The main complaint of the patient is difficulty in swallowing. This symptom, however, appears too late after the disease has been present for some time Occasionally the onset of dysphagia is sudden owing to the blocking of the stricture by a pill or some hard food. More often the dysphagia develops gradually, and there is first some difficulty with solid food. A slight vague sense of something not being just right in the swallowing function may be present for a long time prior to actual difficulty in getting food down. The stricture may be very considerable when the first symptoms appear because any well-chewed solid food can be swallowed through a lumen 5 mm in diameter.

There may be also a feeling of weight or fullness behind the sternum. Or, the earliest complaint is of dyspepsia or flatulence. If the recurrent laryngeal nerve becomes involved, hoarseness may develop. This may be the first symptom of esophageal cancer. Other symptoms are salivation, blood-stained expectoration, coughing, regurgitation (usually a late symptom), actual pain, loss of weight and cachexia. Death may result from inanition and exaustion, or by some complication such as mediastinitis, broncho-pneumonia or hemorrhage from a large vessel. Fistula into the bronchial tree or trachea is mostly responsible for the development of pulmonary complications.

The diagnosis is made from the many symptoms and signs. There may be a collection of frothy saliva in the piriform sinuses at laryngeal examination. This indicates esophageal obstruction. Paralysis of some degree of the vocal cords may be noted. There may be enlarged glands in the neck, or a diffuse swelling pressing forward the trachea. X-ray examination of the chest and esophagus should be carried out. A picture taken with the patient in the Trendelenburg position, just after swallowing the opaque meal, will show the lower limit of the stricture and will define its length. A very thick and heavy opaque meal will often show the length of the stricture, even in the upright position. The radiological appearances of a carcinomatous stricture are characteristic and diagnostic. During deglutition the opaque matter is seen to stop suddenly at the level of the upper end of the stricture and accumulate in the slightly dilated esophagus above while a little trickles through the narrow and irregular stricture.

Esophagoscopic examination will disclose one of the three types of lesion found. The degree of stenosis can be determined by the passage of bougies. A small piece of tissue should be removed for microscopical examination. The distance of the upper end of the stricture from the upper incisor teeth should be carefully noted.

Far too many cases are diagnosed too late for treatment to be anything but alleviative. The difficulty of early diagnosis has to be overcome. The prospect of cure is not so dark now as it was in the past. During any treatment it is important that attention be paid to diet and enough suitable and carefully sieved food must be given.

Gastrostomy is not practiced frequently nowadays. It enables sufficient nourishment for a long time, and it should not be postponed until the patient has become definitely cachectic. Yet, intubation is better than gastrostomy. Souttar's tubes of varying size may be introduced into the stricture through an esophagoscope. Such tubes are retained in position, and the patient may swallow practically normally for many months.

Nowadays the majority of cases received some form of radiation therapy. The results as regards alleviation are on the whole satisfactory and occasionally apparent cures result. Deep x-ray often gives relief and in certain cases cure seems to result. X-ray irradiation should be limited strictly to the esophagus, which needs special skill in roentgen therapeutical technic. Radon seeds introduced into the tumor itself are still in use. Allevintion results in most cases. Radium treatment is rather new for esophageal cancer. Guisez reported 270 cases, and life for most of them was greatly prolonged; there were also a few cases of apparent cure.

Radical operation by some of the accepted methods is still a sensational operation, and the operative statistics still are varying according to the skill and experience of the operator. The main operations are the one-stage thoracico-cervical and the two-stage thoracicor-abdominal. In spite of all treatment the prognosis is still extremely bad for esophageal cancer. The prognosis depends entirely on the early recognition of cancer.

"THE UTILIZATION OF PUS IN THE TREATMENT OF PYOGENIC DISORDERS." By Isaac J. Arnsson, Buffalo, N. Y. New York State Journal of Medicine, vol. 42, p. 770-772. April 1942.

Pus represents the first and important line of defense which the body throws up against the invader. The idea of utilizing it for the offensive is not new in the history of medicine. The practical handicap was the form in which the pus could be used. In 1925, Orsos, of Hungary, reported on a method of preparation of an auto-pus vaccine which could be prepared by any practitioner in the routine office work and without an elaborate bacteriologic instrumentarium. He used this vaccine primarily in gonorrhea and furunculosis but recommended it for any staphylococcic or streptococcic infection. In 1926, Berde, also of Hungary, improved the autogenous pus vaccine by mixing it with a germicide called yatren. He added yatren to the vaccine in a ½ percent solution and advised the use of the vaccine not earlier than 24 hours after its preparation.

The present author followed the method of Orsos and Berde, and used the autogenous pus vaccine in 150 patients in private practice. The conditions in which it was used were: furunculosis, carbuncle, subaxillar abscess, panaritum, hordeolum, dacryocystitis suppurativa, also staphylococcic sepsis. For the group of furuncles the vaccine treatment gave a failure of only 3.25 percent.

Three cases of hordeolum were treated, all of a chronic type of over three months' duration. Treatment was successful in two cases. The third did not clear up after eight injections. One case of chronic dacryocystitis was sent by an ophthalmologist. Every conceivable previous therapeutic procedure, including repeated surgical

draining, had failed. Six injections of autopus vaccine cleared up the condition. The vaccine was unsuccessful in staphylococcic septicemia, and it seems that septicemias are not the field for the Orsos vaccine.

A characteristic feature after the injection of the vaccine is the development of leukocytosis (15 to 25 thousand). Clinically, a profuse drainage sets in after the first and second injection. The healing process is a rapid one. As a rule, no untoward effects are observed. The temperature may rise one or two degrees after the first injection. A slight headache is complained of in about one fourth of all cases. No alarming symptoms of any kind were ever observed. Contraindications are the same as for any other intravenous injection.

Orsos prepares his vaccine by putting 0.06 gramme of the yatren powder into a sterile mortar, adding two to three platinum loops of pus to it grinding it for four to five minutes with a pestel, adding one to two drops of sterile water, grinding it again until a consistency of porridge is obtained, and adding, under constant stirring, the balance of water (8 cc.) The vaccine is ready for use in eight to ten minutes, and the injections are given intravenously every other day, beginning with 1 cc. for the first, followed by 2 cc. for the second and the third, and the balance for the last injection.

The vaccine may be prepared also so that after the first two drops of water are added it is ground thoroughly for five minutes; then one cc. of water is added, and the mixture stirred, and left to stand for 15 minutes. This method permits a saturated (5 percent) solution of yatren to work for 20 minutes on the microorganisms and carries the sterilization method further than in the original method.

"THE EFFECT OF FLIGHT UPON HEARING." By Major Paul A. Campbell. School of Aviation Medicine, Randolph Field, Texas. The Journal of Aviation Medicine, vol. 13, page 56-61, March 1942.

Already in 1773, when Pilatre de Rozier made a balloon journey reaching an altitude of 10,500 feet, it was noticed that descent from the air caused pain in the ear. Since that event there has been much study concerning the effect of flight upon the ears and hearing. The invention of audiometer made possible a more scientific approach to this problem.

It is definitely known today that the hearing of any flyer reflects in varying degree the influence of six forces any or all of which may be present in varying amount in individuals who have never been close to airplanes. The forces are: 1. the hearing apparatus which the flyer inherited, 2. his age, 3. the effect of noise to which he has been subjected during his life, 4. the ability of his tubo-tympanic apparatus to equalize barometric pressure changes to which he has been subjected, 5. disease past and present, 6. the effect of anoxia.

Superior acoustic mechanisms will withstand much of the insult coincident with life. Hence, more emphasis should be laid upon the family history of the flyer. The effect of age can be also demonstrated on every audiogram. Each decade of life brings a certain loss of hearing for the higher tones. It becomes measurable usually after the second decade and progresses with age both in degree and frequency range. At the age of 20 years there may be only a slight loss in the region of the 10,000 double vibration per second frequency but by the age of sixty this loss may have progressed to a point where it has involved all frequencies down to 1,000.

The perception portion of the hearing apparatus, the organ of Corti, with its connections to the brain, is susceptible to the phenomenon of fatigue. Noise or other vibratory energy, regardless of its origin, fatigues this neuro-sensory mechanism in direct relationship to its strength and the length of time it is applied. In flying, the energies which produce this effect are: engine explosions, propeller hum, noise produced by slip-stream effect on structures of the aircraft, sounds from moving parts, preaudible position and negative pressure changes from motion of the propeller, suprasonic vibratory frequencies produced by objects moving at high speed and their overtones. The effect is a notching of the 4,096 d.v. frequency area. This notch deepens and spreads fanwise as the insult is increased until it may involve the conversational range. Great and prolonged insults produce permanent damage to the ear of the aviator.

Faulty mechanism in the closing and opening of the Eustachian tube will result in a condition called aero-otitis media. It may become a rather serious factor because, in contrast to fatigue, it affects the conversational tone range as well as other portions of the curve of hearing.

Little is known concerning the effect of anoxia upon the ear. Yet, as fatigue and oxygenation are closely related, it seems reasonable to suppose that anoxia may account for some of the loss in the high tone levels which cannot be accounted for otherwise.

"MAXILLARY SINUSITIS OF DENTAL FRACTURE ORIGIN." Sobisca S. Hall, and Harry V. Thomas, Clarksburg, W. Va. The West Virginia Medical Journal, vol. 38, page 146-155, April 1942.

The authors analyze 48 patients co-operatively treated by a dentist and a rhinologist. The ages of the patients range from 16 to 65 years. The report suggests that a dental perforation into the maxillary sinus, unless adequate sinus treatment is instituted at once, will produce a serious maxillary sinusitis necessitating surgery for relief. It is also suggested that a spontaneous or surgical closure of the alveolar rent without adequate sinus attention is followed by a serious antral disease with all possible complications in a large percentage of the cases.

Residual patent alveolar fistulas were presented by 19 patients in this series, and 100 percent of them developed sinus disease. Twelve patients presented surgically closed alveolar fistulas without concurrent adequate sinus care. All of these patients developed sinus disease.

The authors believed that resection of part of the alveolar process and approximation of the lingual and buccal mucoperiosteum of the alveolar process with on-end mattress sutures is an ideal method of closure. They had 18 patients upon whom they performed this type of procedure, and 13 of them healed by primary intention. It is also possible to obtain a full thickness sliding graft from the palate and suture it over the area of perforation. Also, a sliding graft may be obtained from the buccal mucous membrane and sutured in place.

The aim of treatment should be prevention whenever possible. It is far better, when possible, to avoid fracture into an antrum than to face a prolonged course of sinus therapy. If the sinus alveolaris has been penetrated without rupturing the mucosa of a normal sinus, the condition should be treated with the greatest care, special care being taken not to rupture the mucosa. This means that no probing of this region should be done. Packs should be left out of the dental socket. If the mucosa has been ruptured, the fistula should be closed at once, and irrigation of the antrum either through the inferior meatus or through the normal ostium should be instituted and carried out for at least ten days. If at that time the x-ray does not show changes in the sinus, and there has been no collection of secretions, the sinus may be considered to have escaped infection.

In the case of fracture of the sinus alveolaris into an already infected antrum without rupture of the mucosa, the cavity should be treated without invading the antrum through the alveolus. Many disease of the antral mucosa are quiescent and do not require very extensive therapy for control. If, however, the rupture occurred into an infected sinus through the mucous membrane, treatment must be instituted immediately by closure of the process and antrotomy in the inferior meatus. Almost always, in such cases, the authors performed the Caldwell-Luc type of antrum operation. Later, they found that similar good results could be obtained by primary closure of the alveolar fistula, antral irrigations transnasally at once, and, only when necessary, should the antrotomy carried out for the maintenance of good nasal ventilation.

If adequate ventilation and drainage of the sinus

has been established, the prognosis is almost 100 percent for cure.

"TREATMENT OF OTOMYCOSIS." Merrill J. Reeh, M.D., Randolph Field, Texas. Annals of Otology, Rhinology, and Laryngology, March, 1942.

This disease is quite a problem in the Canal Zone. The relative high humidity and slight variation in temperature is a factor. Ninety cases were studied over a period of three months. Another one hundred twenty-five cases were studied over a period of four months. This study was preceded by sufficient laboratory and microscopic study to make the findings definite. As this is a valuable contribution to this unsatisfactory subject I am giving the author's summary in its entirety.

Before proper results can be obtained with any substance, the debris must be removed from the canal gently and thoroughly. Attention must be paid to the anterior acute angle. If removal cannot be effected mechanically, a gentle lavage with warm water usually will suffice. Medication is best applied on a wick for the first two or three days, leaving the wick for periods of twelve to twenty-four hours. When the wick is employed the medication is kept in constant contact with the infected surfaces, and undue swelling and obstruction of the canal are prevented.

Careful consideration was given to the work of McBurney and Searey, Gill, Gill, Stokes, Minchew and coworkers, Whalen, and Lederman, before selecting agents for study. Many of the time-honored agents used in the tropics were found valueless during the preliminary four-month period. A few of the better ones were brought into study

Thymol, 2 percent, in cresatin proved to be highly efficient as a fungicide. It did produce considerable burning and discomfort when used in raw canals. Thymol, 1 percent, in cresatin was found to be equally efficient as a fungicide. It did not produce burning, but proved to be a good local anesthetic and drying agent similar to cresatin alone. After the wick had remained twelve to twenty-four hours the canal walls were white, dry, and exfoliative. Much of the dry skin and debris could be removed with an applicator, thus expelling many spores. If the solution proved too strong, it was diluted with equal parts of olive oil. Occasionally the drops, used after wicks had been discontinued, were diluted.

Cresatin alone proved to be excellent, but not as effective as 1 percent thymol in cresatin.

The result from Castelloni's solution was fair when it was used carefully. If used too frequently, it either unduly irritated the canal or caused drying of the skin with resulting pain.

Insufflation of 1 percent iodine and 1 percent thymol in boric acid powder produced fair results. It possessed some value as a medication to be used in resistant cases or in cases of chronic otitis media where an associated fungus infection is known or suspected to exist.

The time honored alcohol-boric solution was no better than the control. In general alcohol preparations proved to be painful and at times increased the inflammation.

The time honored iethyol-glycerine possessed value in early treatment of highly inflamed canals. It was found to be poor as a fungicide.

Glycerine preparations usually macerated the canal walls. Occasionally they aggravated a secondary bacterinl infection which proved worse than the original condition.—M. D. H., M.D.

PLASTIC SURGERY

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"THE NASAL ENTRANCE." W. Raymond McKenzie, M.D., F.A.C.S. Baltimore, Maryland. Southern Medical Journal Vol. 35, May 5, 1942.

The author estimated that 50, probably 75 percent of the men now being inducted into the armed forces have some deviation from the normal nasal entrance. He listed the deformities of the nasal entrance as follows:

1. Curling or curving of the anterior edge of the septal cartilage.
2. Deflection of the anterior edge of the septal cartilage.
3. Deflected columella.
4. Thickened columella.
5. Elongated columella.
6. Eversion of the medial crura of the alar cartilages.
7. Collapse of the lateral crura of the alar cartilages and the triangular cartilages.
8. Congenital atresia of the nares.
9. Any combination of two or more of the above named.

The author describes in detail the proper manner of examining the nose in order to discover these deformities.

Curling or Deflection of the Anterior Edge of the Septal Cartilage

These deformities are easily corrected either by shaving or removal of the anterior edge of the septal cartilage. The incision should be made at the anterior margin of the septal cartilage. Removal of one or two millimeters is usually all that is necessary. This amount can be removed safely, without altering the shape or inter- to do a submucous resection, that can be completed through the same incision, after which the wound is closed by two silk sutures.

Curving or Deflected Anterior Portion of the Septal Cartilage

These cases are really an exaggeration of the above mentioned in which the septum is either curved sharply or angulated acutely in such a shape or extent that it impinges against the outer wall or ala of the nose, either largely or completely occluding one nostril. Incision is made at the anterior edge of the cartilage and as much of the septum as is necessary to correct the deformity, even the entire anterior portion of the septal cartilage is removed, if nothing less will do. Then a straight piece of septal cartilage of proper size and shape is salvaged and transplanted in the columella to provide proper support for the nasal tip. The wound is closed by 2 silk sutures to protect the graft. If packs or splints are used after submucous resection they should be very lightly placed and not tightly packed. Too tight packing causes venous congestion, interfering with proper circulation, and may be responsible for loss of the cartilage transplant, for secondary infection and further deformity.

Thickened Columella

Most often this is due to some deformity of the anterior nasal spine or to an increase in the amount of fat or connective tissue in the columella or to both. The spine should be removed or shaving by chisel. No other method seems to be satisfactory or successful. Sufficient tissue is removed from the columella to reduce its size and a mattress suture is placed through and through the columella to eliminate the space produced by tissue removal.

Elongated Columella

This frequently interferes with nasal breathing because of the overhanging tip. A through-and-through or transfixion incision is made in the columella at the anterior margin of the septal cartilage; a triangular section with its base above, which includes the cartilage and its soft tissue covering, is removed from the fixed septum. In these cases it will also be necessary to remove a small section of the lower border of the upper lateral or triangular cartilages. The movable columella is sutured to the fixed septum on both sides to hold it in position. If the elongation of the columella is due to an enlargement or drooping of the medial crura of the alar cartilage, a marginal incision is made over the medial crus and sufficient skin and cartilage to correct the deformity are removed and the wound closed by sutures. Small adhesive strips are then placed around the tip of the nose to give added support, and to relieve tension on sutures.

Eversion of the Medial Crura

A marginal incision is made over the crus of the alar cartilage, the cartilage dissected free, the everted or deformed portion removed and the wound closed by fine silk sutures.

Collapse of the Triangular and Lateral Crura of the Alar Cartilages

Incision is made over the edge of the upper lateral or triangular cartilage, a small triangular portion removed and the wound allowed to fall together, making sure that none of the cartilage remains exposed. Sutures are not necessary in this location.

For lateral crus of the alar cartilage an eliptical incision is made on each side of the collapsed portion of the cartilage which includes mucous membrane and cartilage down to the overlying skin. This section is removed and the incision closed by one or two silk sutures. This does away with the redundant cartilage and enlarges the nasal entrance in proportion to the amount of tissue removed.

Deflected Columella

This deformity is most frequently due to a deflection of the septum together with some deformity of the anterior nasal spine, usually the result of fracture, at which time the spine was dislocated or deviated to one or the other side, or to an exostosis occurring on one side. Incision is made at the anterior margin of the septal cartilage and the deformity of the septum is corrected by shaving or removal. The nasal spine should be removed entirely or the exostosis removed from one side by a chisel so that the septal cartilage can be replaced in midline. If the nasal spine is not reshaped or removed the result will be disappointing and unsatisfactory.

Prominent or Bulbous Tip

This deformity is usually due to an enlargement of the alar cartilages. A marginal incision is made and by undermining, the cartilage is dissected free from the over-lying skin. A complete section two or three millimeters wide, including nasal mucosa, is removed from the upper inner portion near the nasal septum. Sutures are not necessary here, as the wound edges will fall together. Small adhesive strips are placed around the nasa ltip to maintain proper position of the severed ends of the alar cartilages.

Any or all of these operations can be done equally well under local or general anesthesia or a combination of both. I always inject a solution of 0.5 percent procaine hydrochloride to which is added one minim of epinephrine per dram of solution. This controls bleeding, makes inspection of the operative field easier and contributes greatly to accuracy.

Comment:

The author has pointed out some of the common conditions about the nasal tip which are correctible by Plastic Surgery. Cooperation with rhinologist is very essential in this type of work. Most of these cases can be done under local anesthetic without much time loss on the part of the patient.

Careful attention to detail in these cases is paramount. Most of the patients in this group are extremely grateful for improvement following operation.—G. H. K., M.D.

CARDIOLOGY

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"TREATMENT OF CORONARY THROMBOSIS." Fred M. Smith. M.D., Iowa City, Iowa. Condensed from the Journal of the Indiana State Medical Association.

Despite a favorable condition during the early course of coronary thrombosis, the outlook is always in doubt. There is the possibility of extension of the infaret, or perhaps the development of a new one. Moreover, if the infarct involves the endocardium to a significant extent, mural thrombi usually develop. These often involve both the left and right ventricles and thus may be dislodged and pass to the lungs or into the greater circulation. It has been estimated that mural thrombi develop in about 50 percent of the cases, and that embolic manifestations occur in approximately 15 percent. Occasionally, the area of softening extends through the entire thickness of the wall of the left ventricle and may permit rupture and hemorrhage into the pericardial sac, resulting in death from cardiac compression. In those with extensive myocardial damage and as the result of wide-spread replacement of the muscle by fibrous tissue, the wall of the left ventricle may bulge, producing cardiac aneurysm.

It is apparent from the foregoing that left ventricular failure may be a conspicuous feature in certain instances during the early course of coronary thrombosis. This is usually manifested by periods of intense dyspnea and, if not combated promptly by energetic measures, may result in death.

Premature contractions are common during the first week to ten days. If these occur, there is the possibility of the onset of ventricular tachycardia. Occasionally auricular fibrillation occurs in paroxysms. Flutter, on the other hand, is more likely to be refractory to treatment.

The early stage, particularly the first ten days to two weeks, is the critical period of coronary thrombosis. Morphine should be given in sufficient amounts to control the pain and induce sleep. More recently the addition of atropine has been advocated in order to combat the possibility of associated spasm of the coronary vessels resulting from over activity of the vagus nerve. With the more severe and lasting pain, other measures, such as oxygen and aminophylline, should be employed. These agents contribute to the control of the pain by increasing the oxygen content and the amount of blood reaching the damaged myocardium. Moreover, one should endeavor to reduce the area of infarction to the minimum. My associates and I have demonstrated that it is possible to accomplish this in the dog with aminophylline. Consequently it has been our practice to institute the use of the drug early in the course of the disease. In some instances it is given intravenously in doses of 0.48 gm. twice daily during the first week. If plenty of time is allowed for the injection, there is seldom unfavorable reaction. After the first week, except in certain instances of left ventricular failure, this method of administration is discontinued and the drug is given by mouth in doses of grs. III, three to four times a day. In those with minimal cardiac damage the oral administration is employed from the onset. If the drug is too irritating to the gastro-intestinal tract, the enteric coated tablets are used.

After the pain has disappeared, unless there is dyspnea, a simple sedative such as phenobarbital, grs. ½, three to four times a day, is usually effective in promoting the desired relaxation and sleep. There are many individuals who would become very tired of the bed unless a sedative of this general nature is prescribed.

The diet should be simple in character and one calculated not to promote abdominal distention. Coffee is permissible, if desired. The fluid intake is not restricted except in the presence of cardiac failure, and then rarely below 2,000 cc. during the 24 hours.

During the first week or ten days in particular it is obvious that the patient should be spared all unnecessary physical effort. It is generally possible to regulate the bowels by simple measures, such as mineral oil and perhaps glycerin suppositories. Occasionally it may be advisable to employ a small warm water enema.

In many instances this, with the continuation of bed rest and the later management of the patient after he is allowed out of bed, constitutes the treatment. Certain complications, however, may arise. In presence of frequent premature beats, ventricular tachycardia may occur. The administration of quinidine sulfate grs. III, four to six times a day, affords the best means of eliminating the premature contractions. Ventricular tachycardia is a serious complication and, unless abolished, will ultimately terminate in death. Here again quini-

dine sulfate is the most effective remedy. However, large amounts are usually required and occasionally intravenous administration is necessary. When given intravenously the quinidine, usually in doses of grs. X to XX, is added to 100 cc. physiological salt solution, distilled water or glucose solution and is injected very slowly.

There seems to be considerable doubt regarding the use of digitalis. It is indicated where there is cardiac failure. If rapid action is desired, a preparation for intravenous use may be added to the solution containing aminophylline.

The duration of bed rest is determined by the circumstances. A period of four to six weeks is ordinarily advised; however, with extensive heart damage it should be longer. One should feel as certain as possible that the infarct has healed and that the maximum benefit has been derived from bed rest before the patient is allowed to be up and, particularly if he has been in bed for a long period, the legs and feet should be condition as much as possible by gentle massage.—F. R. H., M.D.

ORTHOPAEDIC SURGERY

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"THREE PATIENTS SHOWING THE RESULT OF TREATMENT OF CARPAL DISLOCATION." F. A. Simmonds. Proceedings of the Royal Society of Medicine, XXXIV, 507.

The author presents three cases of anterior dislocation of the carpus, following hyperextension injury to the wrist, all three of which failed to respond to manual reduction. Symptomatology was characterized by swollen wrist, immobile fingers, and evidence of "median nerve irritation." The first case responded to skeletal traction by means of Kirschner wires through the metacarpal bases and the olecranon, and the use of the Zimmer apparatus. The dislocation was reduced by manipulation while the traction was active.

The other two cases failed to respond to this skeletal distraction method, and open reduction was necessary.

The author is also of the opinion that excision of the lunate alone gives a good result, but that removal of the scaphoid results invariably in a very poor wrist. He, therefore, feels that when excision of the scaphoid becomes necessary, the entire proximal carpal row should be removed. The latter procedure offers a prospect of a fair end result.

Compression Fractures of the Dorsolumbar vertebrae. John W. Gullikson and Edward R. Anderson. Western Journal of Surgery, Obstetrics & Gynecology, XLIX, 576, 1941.

The authors stress the importance of the "Soto-Hall" sign. This test is performed by acute flexion of the neck, and causes pain at the fracture site due to stretching of the ligamentous attachments of the vertebrae. By this test many fractures likely to be missed can be discovered.

In the treatment advocated, the patient is placed in bed and a sling is placed about him at the fracture site with a sulley arrangement and about forty to fifty pounds of overhead traction. This produces gradual hyperextension which the authors believe superior to rapid forceful methods, especially in patients with other injuries. The patient is allowed to rest in this apparatus for from four to ten days, and is then placed in a Rogers hammock frame in hyperextension. A body cast is then applied in this position, care being taken that a tight fit is secured about the pelvis. A window is cut in the abdomen to facilitate breathing. The patient is allowed up and about with the cast after two or three days. This is worn for at least two or three months, and is followed by a Taylor spinal brace for another two months, after which physiotherapy and graded exercises are started. The usual patient is able to discard his brace in from six to eight months, and is able to return to his usual work at that time.

Thirty-four cases of compression fracture were treated by this method. The average length of disability was eight and two-tenths months. There was one operation for compression symptoms of the cord to which the patient responded successfully. No development of Kummell's disease was seen in this series. Thirty-two patients were able to return to their regular work; twelve had occasional backaches, though not severe enough to cause loss of time; and sixteen were symptom-free.

Fractures of the Forearm and Elbow in Children. An Analysis of Three Hundred and Sixty-Four Consecutive Cases. Augustus Thorndike, Jr., and Charles L. Dimmler, Jr. New England Journal of Medicine, CCXXV, 475, 1941.

The author presents a valuable review of the methods of treating fractures of the forearm and elbow, and indicate that the incidence of such fractures in children under twelve years of age is high. They advise closed manipulative reduction; but if open reduction is necessary for alignment, it should be carried out within forty-eight hours. In their series, the incidence of open reduction was 1 percent in fractures of the distal forearm; none in the proximal two thirds; and 6 percent in fractures of the elbow. They discuss the well- accepted methods and position of fixation after reduction.

In fractures of the elbow, with the exception of those of the olecranon, the acute flexion position was used, with the position being maintained in the so-called "pistal holster" sling which permits ready inspection of fingers, hand, and radial pulse.

The authors condemn the indiscriminate use of open reduction, and the utilization of bone plates, screws, or other forms of advertised hardware, in treating fractures of the distal third of the forearm.—E. D. Mc., M.D.

INTERNAL MEDICINE

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"SPECIFIC MORPHOLOGY OF CRYSTALS APPEARING IN THE URINE DURING ADMINISTRATION OF SULFANILAMIDE DERIVATIVES." By David Lehr and William Antopol. From the Laboratories of the Newark Beth Israel Hospital, Newark, N. J. American Journal of Clinical Pathology, Volume 12, Number 4, April 1942.

The authors have investigated and photographed crystals which occur in the human urine during the administration of sulfanilamide derivatives and have reviewed their findings as well as those of others representing the characteristic crystals for each derivative as follows.

Sulfapyridine crystals are described as "large jagged arrowhead-shaped," "crystals which resemble the cross section of a fairly thick convex lens with a peripheral portion of one are shorn off, as the most common form occurring singly or in spiky conglomeratoins," "whetstones" and "arrowhead's" may be present.

Sulfathiazole crystals are described as "dumbbell" or "shock of wheat" type, the dumbbell form being the most common. Occasionally they also form rosettes.

Sulfadiazine crystals are described as frequently of the "sheaves of wheat" type and in contradistinction

to the acetylsulfathiazole "eccentric bindings" and "shell" forms.

Feather-like tufts or needle crystals, amber green in color were observed in a patient receiving sulfamethylthiazole.

Simple rectangular oblong plates with slight bulging in the long axis which tend to conglomeration and form a cross or star-like structures were found in cases taking acetylsulfaguanidine.

It has been noted that the frequency and quantity of the appearance of crystals in the urine is apparently closely related to the solubility of the sulfanilamide compounds and their acetylated derivatives.

In vitro formation of urinary crystals occurs most easily with acetylsulfadiazine and somewhat more difficulty with acetylsulfathiazole and most difficultly with acetylsulfapyridine.

A few types have been found in jaundiced patients and in others with concentrated urine which closely simulate crystals in sulfanilamide derivatives.

Interesting photomicrographs are shown.

"DIABETES YESTERDAY, TODAY AND TOMORROW." Elliott P. Joslin. Proc. Am. Diabetes A., 1:119-37, 1941.

An accelerated tempo in treatment of the diabetic rules today as in the manufacture of munitions. We have the tools—diet and Insulin—and a beginning of treatment can usually be made at the first visit. It is good for the patient to leave the office knowing his improvement has begun, and this he recognizes at once if he takes his first dose of Insulin rather than talks about the first dose. The use of Protamine Zinc Insulin and the simple diet can be taught in half an hour and the patient realizes that he is getting results. Within a week a patient came to the office and related that at the first visit to his physician his disease was diagnosed, a diet given, and his injections begun. And besides that, he was also taught how to do a Benedict test.

What an opportunity for young doctors! Diabetes was twenty-seventh and is now eight hand almost inevitably soon to be sixth. Even if it is not the sixth cause of death, and that is quite possible because of statistical factors in reporting, at least it will rank sixth as the coincident disease. Diabetes is a disease for the doctor to follow throughout his whole medical career.

In the pituitary gland there is a hormone, not yet isolated, which injected into a dog will cause diabetes, but with each injection until the last massive dose there is a struggle for reversal of the process. There must be something like an antidiabetic hormone. Who will discover it?—H. J., M.D.

TRACHOMA CAN BE TREATED EFFECTIVELY

Acute trachoma, a contagious granular inflammation of the membrance that lines the yelids and covers the eyeball, can be treated so successfully that less than one percent of the eyes infected will become industrially blind, Harry S. Gradle, M.D., Chicago, declares in The Journal of the American Medical Association for July 4 in a report of the visual results obtained in the trachoma clinics of southern Illinois. His report lists the results from treating two groups of patients in stages one and two of the disease, 328 eyes in one group being treated with sulfanilamide and 493 eyes in the other group being treated by other means.

"From the final visual standpoint," he says, "systemic treatment with sulfanilamide is preferable to purely local treatment because: (a) twice as many eyes show definite improvement in vision and (b) less than half as many eyes show positive losses in vision."

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Timely Hints on Immunization . . .

Diphtheria Toxoids **Lederle**
Smallpox Vaccine **Lederle**

COOPERATING WITH THE NATIONAL PLAN of having all children over six months of age immunized against diphtheria and smallpox, public health authorities of several states are undertaking intensive drives of their own to secure the protection of a maximum number of children from these infectious scourges of childhood.

Statistics† show that there was an increase of over 1,200 cases of diphtheria in the country in 1941 over the number reported for 1940. The median for the five preceding years was almost twice the number for 1940. Let us not lose valuable ground gained—the upward trend in the incidence of diphtheria must not continue in 1942!

The method of diphtheria immunization most generally favored at present is 2 doses of alum precipitated toxoid or 3 doses of plain toxoid. In addition, the Department of Health of New York City has adopted the plan of urging that a single supplemental dose of 1 cc. of plain toxoid be given shortly before entering school to all children who have previously been immunized during infancy.

Smallpox incidence in 1941 reached a new low,† and public health authorities and practitioners should be proud of this attainment! However, 1,363 cases of smallpox were reported in 1941. Since this is a preventable disease, it is obvious that the goal has not yet been reached.

†Pub. Health Rep. 57:23,24 (Jan. 2) 1942.

IMMUNIZATION SCHEDULE		
Immunization should be carried out against:	LEDERLE PRODUCT	TIME
Smallpox	Smallpox Vaccine*	6-12 months (revaccinate at 6 and 12 years)
Diphtheria	Diphtheria Toxoids*	6-12 months (Schick Test at 6 years—reimmunize if necessary)
Rabies	Rabies Vaccine*	Promptly after exposure

Immunization is recommended against:	LEDERLE PRODUCT	TIME
Scarlet Fever	Scarlet Fever Streptococcus Toxin*	After 18 months
Measles	Immune Globulin*	After exposure
Tetanus	Tetanus Toxoid*	Before probable exposure

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"DIPHTHERIA TOXOID *Lederle*" (Plain)
1 and 10 immunizations

"DIPHTHERIA TOXOID *Lederle*" (Refined Alum Precipitated)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*" (U. S. P.)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*" (Preserved with Brilliant Green)
1, 5 and 10 immunizations

Pocket-size card, showing Lederle's Immunization Schedule and Chart of Vitamin requirements, on request.

*Accepted by Council on Pharmacy and Chemistry of the American Medical Association.

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OFFICERS OF COUNTY SOCIETIES, 1942

★

COUNTY	PRESIDENT	SECRETARY	MEETING TIME
Alfalfa	Jack F. Parsons, Cherokee	L. T. Lancaster, Cherokee	Last Tues. Each 2nd Mo.
Atoka-Coal	J. B. Clark, Coalgate	J. S. Fulton, Atoka	
Beckham	H. K. Speed, Sayre	E. S. Kilpatrick, Elk City	Second Tues. eve.
Blaine	Virginia Olson Curtin, Watonga	W. F. Griffin, Watonga	
Bryan	A. J. Wells, Calera	W. K. Haynie, Durant	Second Tues. eve.
Caddo	Fred L. Patterson, Carnegie	C. B. Sullivan, Carnegie	
Canadian	P. F. Herod, El Reno	A. L. Johnson, El Reno	Subject to call
Carter	Walter Hardy, Ardmore	H. A. Higgins, Ardmore	
Cherokee	Park H. Medearis, Tahlequah	Isadore Dyer, Tahlequah	
Choctaw	C. H. Hale, Boswell	Fred D. Switzer, Hugo	
Cleveland	F. C. Buffington, Norman	Phil Haddock, Norman	Thursday nights
Comanche	George S. Barber, Lawton	W. F. Lewis, Lawton	
Cotton	George W. Baker, Walters	Mollie F. Scism, Walters	Third Friday
Craig	W. R. Marks, Vinita	J. M. McMillan, Vinita	
Creek	Frank Sisler, Bristow	O. H. Cowart, Bristow	
Custer	Richard M. Burke, Clinton	W. C. Tisdal, Clinton	Third Thursday
Garfield	D. S. Harris, Drummond	John R. Walker, Enid	Fourth Thursday
Garvin	T. F. Gross, Lindsay	John R. Callaway, Pauls Valley	Wed before 3rd Thurs.
Grady	D. S. Downey, Chickasha	Frank T. Joyce, Chickasha	3rd Thursday
Grant	I. V. Hardy, Medford	E. E. Lawson, Medford	
Greer	G. F. Border, Mangum	J. B. Hollis, Mangum	
Harmon	S. W. Hopkins, Hollis	W. M. Yeargan, Hollis	First Wednesday
Haskell	William Carson, Keota	N. K. Williams, McCurtain	
Hughes	Wm. L. Taylor, Holdenville	Imogene Mayfield, Holdenville	First Friday
Jackson	J. M. Allgood, Altus	Willard D. Holt, Altus	Last Monday
Jefferson	W. M. Browning, Waurika	J. I. Hollingsworth, Waurika	Second Monday
Kay	J. C. Wagner, Ponca City	J. Holland Howe, Ponca City	Third Thurs.
Kingfisher	C. M. Hodgson, Kingfisher	John R. Taylor, Kingfisher	
Kiowa	J. M. Bonham, Hobart	B. H. Watkins, Hobart	
LeFlore	G. R. Booth, LeFlore	Rush L. Wright, Poteau	
Lincoln	E. F. Hurlbut, Meeker	C. W. Robertson, Chandler	First Wednesday
Logan	William C. Miller, Guthrie	J. L. LeHew, Jr., Guthrie	Last Tuesday evening
Marshall	J. L. Holland, Madill	O. A. Cook, Madill	
Mayes	L. C. White, Adair	V. D. Herrington, Pryor	
McClain	B. W. Slover, Blanchard	R. L. Royster, Purcell	
McCurtain	R. D. Williams, Idabel	R. H. Sherrill, Broken Bow	Fourth Tues. eve.
McIntosh	F. R. First, Checotah	William A. Tolleson, Eufaula	Second Tuesday
Murray	P. V. Annadown, Sulphur	F. E. Sadler, Sulphur	
Muskogee	Shade D. Neely, Muskogee	J. T. McInnis, Muskogee	First & Third Mon.
Noble	J. W. Francis, Perry	C. H. Cooke, Perry	
Okfuskee	J. M. Pemberton, Okemah	L. J. Spickard, Okemah	Second Monday
Oklahoma	R. Q. Goodwin, Okla. City	Wm. E. Eastland, Okla. City	Fourth Tuesday
Okmulgee	J. G. Edwards, Okmulgee	John R. Cotteral, Henryetta	Second Monday
Osage	C. R. Weirich, Pawhuska	George K. Hemphill, Pawhuska	Second Monday
Ottawa	J. B. Hampton, Commerce	Walter Sanger, Picher	Third Thursday
Pawnee	E. T. Robinson, Cleveland	Robert L. Browning, Pawnee	
Payne	John W. Martin, Cushing	James D. Martin, Cushing	Third Thursday
Pittsburg	Austin R. Stough, McAlester	Edw. D. Greenberger, McAlester	Third Friday
Pontotoc	R. E. Cowling, Ada	E. R. Muntz, Ada	First Wednesday
Pottawatomie	John Carson, Shawnee	Clinton Gallaher, Shawnee	First & Third Sat.
Pushmataha	P. B. Rice, Antlers	John S. Lawson, Clayton	
Rogers	W. A. Howard, Chelsea	George D. Waller, Claremore	First Monday
Seminole	H. M. Reeder, Konawa	Mack I. Shanholtz ,Wewoka	
Stephens	A. J. Weedn, Duncan	W. K. Walker, Marlow	
Texas	L. G. Blackmer, Hooker	Johnny A. Blue, Guymon	
Tillman	C. C. Allen, Frederick	O. G. Bacon, Frederick	
Tulsa	H. B. Stewart, Tulsa	E. O. Johnson, Tulsa	Second & Fourth Mon. eve.
Wagoner	J. H. Plunkett. Wagoner	H. K. Riddle, Coweta	
Washington-Nowata	R. W. Rucker, Bartlesville	J. V. Athey, Bartlesville	Second Wednesday
Washita	A. S. Neal, Cordell	James F. McMurry, Sentinel	
Woods	W. F. LaFon, Waynoka	O. E. Templin, Alva	Last Wednesday
Woodward	M. H. Newman, Shattuck	C. W. Tedrowe, Woodward	